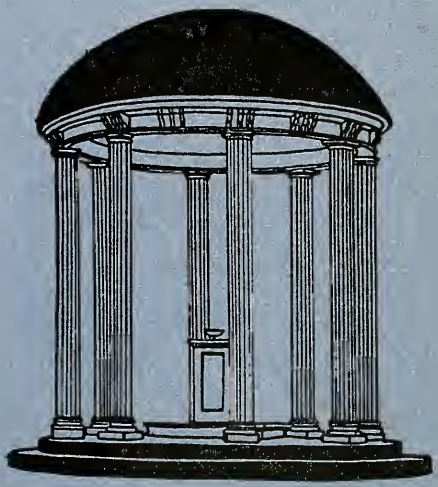
THE UNIVERSITY OF NORTH CAROLINA

At Chapel Hill

ay 25, 1962 **RECORD** *Number 644*

HE GENERAL CATALOGUE ISSUE



SCHEDULE OF ISSUES OF

THE RECORD

FOR YEAR 1961-1962

School of Library Science Catalogue

Department of City and Regional Planning Catalogue

School of Social Work Catalogue

School of Pharmacy Catalogue

Section on Physical Therapy Catalogue

Summer Session Catalogue

School of Business Administration Catalogue

School of Education Catalogue

School of Dentistry Catalogue

School of Law Catalogue

School of Public Health Catalogue

School of Nursing Catalogue

Graduate School Catalogue

School of Medicine Catalogue

The General Catalogue Issue

The Undergraduate Bulletin

THE UNIVERSITY OF NORTH CAROLINA RECORD
Published by THE UNIVERSITY OF NORTH CAROLINA PRESS
Issued 14 Times A Year As Follows: 2 Numbers in January, 3 Numbers in February, 3 Numbers in March, 3 Numbers in April, 2 Numbers in May and 1 Number in October. Entered as Second-Class Matter at the Post Office at
CHAPEL HILL, N. C.
Under the Act of August 24, 1912

MAY 25, 1962 NUMBER 644

THE UNIVERSITY OF NORTH CAROLINA RECORD

THE ONE HUNDRED AND
SIXTY-EIGHTH SESSION

THE GENERAL CATALOGUE ISSUE

Announcements for the Session
1962-1963

THE UNIVERSITY OF NORTH CAROLINA PRESS
CHAPEL HILL, N. C.

CALENDAR OF EVENTS

1962-1963

FALL SEMESTER, 1962

September 15, Saturday, 9:00 A.M.	Placement test for new freshmen who did not participate in summer advanced placement tests and registration, Auditorium, Carroll Hall. Freshman men may occupy assigned dormitory rooms any time on Friday, September 14. Freshman women will be notified by Office of Dean of Women where to report.
	Dormitories open for occupancy
September 15-16, Saturday-Sunday	(a) New and returning men students
September 16, Sunday	(b) New women students: nine o'clock and after (9:00 A.M.)
September 19, Wednesday	(c) Returning women students: after twelve noon (12:00 M.)
September 16, Sunday, 7:00 P.M.	Orientation begins. Assembly for all freshmen and new transfer students according to schedule to be announced.
September 18-19, Tuesday-Wednesday	Examination for advanced standing and removal of conditions.
September 19-20, Wednesday-Thursday	Registration for all new students and all former students not preregistered. Preregistered students pick up class tickets. Orientation closes.
September 21, Friday	Classes for fall semester begin in all departments of the University. Late registration begins. Late registration fee of $5.00 for all registering during this period.
September 24, Monday, 4:30 P.M.	Late registration and change in schedule closes. No registrations accepted after this date.
October 12, Friday	University Day.
November 5, Monday, 4:30 P.M.	Progress reports for freshmen due.
November 5, Monday, 3:00 P.M.	Graduate Executive Council, Consolidated University Office, Chapel Hill.
November 17, Saturday, 12:00 M.	Last day for withdrawing from fall semester and for receiving any refund of fees.
November 21, Wednesday, 1:00 P.M.	Instruction ends in all departments for Thanksgiving recess.
November 25, Sunday, 6:00 P.M.	Thanksgiving recess ends.
November 26, Monday, 8:00 A.M.	Instruction resumed in all departments.
December 20, Thursday, 6:00 P.M.	Instruction ends in all departments for Christmas vacation.
January 3, 1963, Thursday, 6:00 P.M.	Christmas vacation ends.
January 4, Friday, 8:00 A.M.	Instruction resumed in all departments.
January 19, Saturday, 12:00 M.	Fall semester classes end.
January 21, Monday, 8:30 A.M.	Fall semester final examinations begin.
January 29, Tuesday, 6:00 P.M.	Fall semester final examinations end.

SPRING SEMESTER, 1963

January 30, Wednesday, 12:00 M.	Dormitories open for new students.
January 31, Thursday, 9:00 A.M.	Orientation and placement of all new freshmen and transfer students according to schedule to be announced.
February 1-2, Friday-Saturday Friday (8:30-4:30), Saturday (8:30-12:00 M.)	Registration. According to schedule announced by Office of Records and Registration.
February 4, Monday, 8:00 A.M.	Classes for spring semester begin in all departments of the University. Late Registration begins. Late registration fee of $5.00 for all registering during this period.
February 6, Wednesday, 4:30 P.M.	Late registration and change in schedule closes. No registrations accepted after this date.
March 18, Monday, 4:30 P.M.	Progress reports for freshmen due.
April 1, Monday, 3:00 P.M.	Graduate Executive Council, Consolidated University Office, Chapel Hill.
April 6, Saturday, 12:00 M.	Last time for withdrawing from spring semester and for receiving any refund of fees.
April 6, Saturday, 12:00 M.	Last day for making application to appropriate dean for June graduation.
April 11, Thursday, 12:00 M.	Instruction ends in all departments for spring recess.
April 16, Tuesday, 6:00 P.M.	Spring recess ends.
April 17, Wednesday, 8:00 A.M.	Instruction resumed in all departments.
April 17, Wednesday, 4:30 P.M.	Last day for men students in residence to reserve rooms for next scholastic year.
May 21, Tuesday, 6:00 P.M.	Classes end for spring semester.
May 22, Wednesday, 8:30 A.M.	Spring semester final examinations begin.
May 30, Thursday, 6:00 P.M.	Spring semester final examinations end.
June 1, Saturday	Commencement begins.
June 2, Sunday	Commencement sermon.
June 3, Monday	Graduation exercises.

SUMMER SESSION, 1963

First Term

June 10, Monday	Registration.
June 11, Tuesday	First day of classes.
June 15, Saturday	Regular classes in all departments.
July 18-19, Thursday-Friday	Examinations.

Second Term

July 22, Monday	Registration of new students.
July 23, Tuesday	First day of classes.
July 27, Saturday	Regular classes in all departments.
August 29-30, Thursday-Friday	Examinations.

1962

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Part One

GENERAL INFORMATION

THE UNIVERSITY OF NORTH CAROLINA

(Three Component Institutions)

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President*
DONALD BENTON ANDERSON, Ph.D., *Vice-President for Graduate Studies and Research*
ALEXANDER HURLBUTT SHEPARD, JR., M.A., *Business Officer and Treasurer*
FREDERICK HENRY WEAVER, A.M., *Secretary*

By the act of the General Assembly of 1931 the University of North Carolina at Chapel Hill, the North Carolina College for Women at Greensboro, and the North Carolina State College of Agriculture and Engineering at Raleigh were consolidated into the University of North Carolina.

Each institution has its own faculty and student body, and each is headed by a chancellor as its chief administrative officer. Unified general policy and appropriate allocation of function are effected by a single Board of Trustees and by the President with other administrative officers of the consolidated University. Administrative offices are located in Chapel Hill.

Members of the Board of Trustees are elected by the Legislature, and the Governor of North Carolina is chairman ex officio. A current list of members of the Board of Trustees is in Part VI.

The Vice-President and Finance Officer has general administrative responsibilities and is specifically concerned with the development programs of the University, the presentation of University budget requests to the several agencies of state government, the Escheats Fund, and relationships with national foundations and agencies of the federal government.

The Vice-President for Graduate Studies and Research, working with the University Graduate Executive Council and the deans of the three graduate schools, has the responsibility for the coordination of the graduate offerings and research programs of the University.

The Provost of the University is responsible for the coordination of the undergraduate programs of the University, the general extension programs, educational television, admissions policies, and academic personnel policies including promotion and tenure regulations.

The Business Officer and Treasurer has the responsibility of overall supervision of the preparation of the University budget requests and the expenditure of authorized budgets. This officer is also re-

sponsible for the administration within the University of those enactments of the General Assembly that relate to the classification of personnel under the State Personnel Act.

Each of these officers and the chancellors of the component institutions are responsible to the President as the principal executive officer of the University of North Carolina.

Inquiries concerning the State College of Agriculture and Engineering or the Woman's College of the University of North Carolina should be sent to the Director of Admissions of that college at Raleigh or Greensboro respectively. This General Catalogue issue of *The University of North Carolina Record* includes only information about the University at Chapel Hill.

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

WILLIAM BRANTLEY AYCOCK, A.M., J.D., LL.D., *Chancellor*

THE GENERAL FACULTY

GEORGE MILLS HARPER, Ph.D., *Chairman of the Faculty*
ALMONTE CHARLES HOWELL, Ph.D., *Secretary of the Faculty*

ADMINISTRATIVE DIVISIONS

Academic Affairs: JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*
Graduate School: GEORGE ALEXANDER HEARD, Ph.D., *Dean*
Health Affairs: HENRY TOOLE CLARK, JR., M.D., *Administrator*
Student Affairs: CHARLES HENDERSON, JR., Ph.D., *Dean*
Business Affairs: JAMES ARTHUR BRANCH, *Business Manager*
Developmental Affairs: CHARLES MILTON SHAFFER, S.B. Comm., *Director*

ATHLETICS

CHARLES PERRY ERICKSON, S.B. in Civil Engineering, *Director*

The University of North Carolina, provided for in the state constitution in 1776 and chartered in 1789, laid the cornerstone of its first building in 1793 and opened its doors to students in 1795. It thereby became the first state university in the United States to admit students and send them out into the nation bearing a state university diploma.

"Historical Sketch" in Part VI of this catalogue presents additional information and a selected bibliography.

ORGANIZATION AND DEGREE PROGRAMS

The functional organization of the University comprises six administrative divisions under the general direction of the Chancellor and the faculty. The divisions of Business Affairs and Developmental

Affairs support and facilitate operations of the other divisions. The Division of Student Affairs includes the Office of Admissions, the Office of Records and Registration, the Office of Student Financial Aid, the Housing Office, the Office of Placement Services, University Testing Service, Student Health Service, and counseling services.

The Division of Academic Affairs is made up of the General College, the College of Arts and Sciences, and the schools of Business Administration, Education, Journalism, Law, Library Science, and Social Work. It also includes the Summer Session, the Library, the University Extension Division, and certain auxiliary agencies which contribute to instructional and research programs administered by the Division.

The Division of Health Affairs, combining health services with instruction, includes the North Carolina Memorial Hospital and the schools of Dentistry, Medicine, Nursing, Pharmacy, and Public Health.

The Graduate School has administrative responsibility for all degrees beyond the four-year bachelor's degrees, except the Bachelor of Laws, the Doctor of Dental Surgery, and the Doctor of Medicine. It also administers graduate fellowships, scholarships, and assistantships and fosters research activities throughout the University.

UNDERGRADUATE PROGRAMS

The General College provides during the freshman-sophomore years guidance and instruction in basic studies required for admission to the College of Arts and Sciences and the schools of Business Administration, Education, Journalism, Pharmacy (freshman year only), and Public Health. Programs of study prescribed for the first and second years of the various curricula have a common core of required specified subjects (English, hygiene, physical education, social science) and required choices from specified subject areas (natural science, modern languages, mathematics-classics). This similarity, together with a liberal range of sophomore electives, permits transfer within the General College from one curriculum to another, usually without loss of credit. Prescribed differences among the General College programs permit some specialization to begin in the first two years at the University. Further information can be found in "General College," Part III.

The College of Arts and Sciences administers undergraduate programs of study leading to the following degrees: Bachelor of Arts (with selected major in one department); Bachelor of Music; Bachelor of Science (with subject of specialized study designated on diploma) in Chemistry, in Geology, in Physics, in Mathematics, in Bacteriology, and in Industrial Relations. Jointly with the professional schools, the College of Arts and Sciences has jurisdiction over certain academic degrees which mark systematic advancement in a professional program

requiring a longer period than four years of combined academic and professional study: Bachelor of Arts and Laws; Bachelor of Science in Medicine, in Medical Technology, and in Dentistry. Further information can be found in "College of Arts and Sciences," Part III.

Undergraduate programs of study administered by the professional schools are fully described in each school's special catalogue, which should be consulted to supplement the information in Part III of this catalogue.

These undergraduate programs lead to the degrees listed below:

(IN THE DIVISION OF ACADEMIC AFFAIRS)

School of Business Administration: Bachelor of Science in Business Administration and (jointly with the School of Law) Bachelor of Science in Business Administration and Laws.

School of Education: Bachelor of Arts in Education (Elementary or Secondary); Bachelor of Science in Science Teaching and in Health Education.

School of Journalism: Bachelor of Arts in Journalism.

(IN THE DIVISION OF HEALTH AFFAIRS)

School of Dentistry: Bachelor of Science in Dental Hygiene and (jointly with the College of Arts and Sciences) Bachelor of Science in Dentistry.

School of Medicine: Bachelor of Science in Physical Therapy and (jointly with the College of Arts and Sciences) Bachelor of Science in Medicine and in Medical Technology.

School of Nursing: Bachelor of Science in Nursing.

School of Pharmacy: Bachelor of Science in Pharmacy.

School of Public Health: Bachelor of Science in Public Health and in Public Health Nursing.

GRADUATE AND PROFESSIONAL PROGRAMS

The degrees of Master of Arts and Master of Science are offered in thirty-eight schools and departments, and the degree of Doctor of Philosophy is offered in twenty-nine schools and departments. The complete lists can be found in "Graduate School," Part III.

In the Division of Academic Affairs professional graduate degrees administered by the Graduate School include Doctor of Education; Master of Business Administration, of Education, of Music, of Regional Planning, of Social Work; Master of Arts in Communication, in Creative Art; and Master of Science in Personnel Administration, in Library Science, and in Recreation Administration; Licentiate in Dramatic Art.

The following professional degrees are offered in the Division of Health Affairs and administered by the Graduate School: Doctor of Public Health; Master of Public Health; Master of Science in Nursing, in Oral Pathology, in Oral Surgery, in Orthodontics, in Pedodontics, in Periodontology, in Prosthodontics, in Public Health, and in Sanitary Engineering.

Advanced professional degrees under the jurisdiction of the respective schools are Bachelor of Laws, Doctor of Medicine, and Doctor of Dental Surgery.

For further information concerning the graduate and professional degrees mentioned above, see appropriate sections of Part III of this catalogue or the catalogues of the Graduate School and the professional schools.

UNDERGRADUATE HONORS PROGRAMS

Under the general direction of the Faculty Council on Honors, special programs of honors study are open to qualified students. In the General College, a Freshman and Sophomore Honors Program is provided on an invitational basis for outstanding members of these classes; it consists primarily of placement in special advanced sections of the required courses of the General College curriculum. Programs in departmental honors, offered in most departments of instruction in the College of Arts and Sciences and in some of the professional schools, are designed to provide opportunity for individualized, advanced programs of reading, instruction, and research for students of high academic standing. The honors advisers of all the departments comprise the Faculty Council on Honors, which has the responsibility of general coordination of these various programs. More detailed information on these programs, and other opportunities for advanced standing, is given in Part III.

SUPPLEMENTATION AND ACCELERATION OF PROGRAMS

In addition to the colleges and the schools, other University agencies provide opportunities for enrichment and possible acceleration of the selected program of study. The University Library is not only an indispensable supplement to all classroom instruction but a constant challenge to independent reading and systematic investigation. Within prescribed limits academic credit earned in the Summer Session and through correspondence or extension courses of the University Extension Division may hasten progress toward most degrees, restore eligibility, or remove some entrance deficiencies. Opportunities for advanced standing and special courses for superior students in the General College are explained in Part III.

Instruction in Naval Science or in Air Science may be combined with undergraduate programs of study chosen by applicants admitted

to the Naval Reserve Officers Training Corps or the Air Force Reserve Officers Training Corps. Such programs, successfully pursued for four years, lead to bachelors' degrees and to commissions in the Navy, the Marine Corps, or the Air Force. Further information in Part IV.

Other agencies described in Part V provide (generally without formal credit) varied opportunities for laboratory experience, specialized research, and cultural acquirements.

STUDENT LIFE AND CAMPUS CITIZENSHIP

Apart from class instruction and academic counseling, almost every aspect of student life is the concern of one or more offices of the Division of Student Affairs.

Services essential to the welfare of the student body are rendered by the offices of Assistant Dean of Student Affairs, Admissions, Housing, Records and Registration, Testing, the Director of Student Health Service, and the Dean of Women.

Readily available to individuals and groups are the services of the YMCA-YWCA staff, the Graham Memorial Student Union, the Office of Student Financial Aid, the University Placement Service, and special advisers to foreign students and veterans.

The Dean of Student Affairs is the administrative head of the Division and chairman of its administrative board. Personal guidance not elsewhere available and coordination of student activities are primary functions of the Office of Student Affairs and of the Office of the Dean of Women.

Problems peculiar to foreign students and all questions relating to them are referred to the two special advisers in this area.

Names of officers and advisers are listed in "Division of Student Affairs," Part VI.

HEALTH AND MEDICAL ATTENTION

In order to provide proper medical attention for the student, the University employs five full-time physicians and maintains a well-appointed infirmary, with a modern X-ray unit under the direction of a full-time technician, and with a laboratory for diagnostic purposes under the direction of two full-time technicians. The infirmary is under the immediate supervision of the Director of Student Health Service and is provided with ten experienced nurses who are under the general supervision of a head nurse. At the discretion of his attending physician a student may be admitted to its wards, and for such services as may be rendered by the staff no charges are made. But the student will be required to pay for any additional service (consultation, special nurses, and operations) recommended by the attending physician and approved by the parent or guardian.

All undergraduate students, during their first two years at the University, are required to take physical education courses or otherwise to meet desirable standards of physical fitness as determined by their medical histories. Hygiene is a required course for freshmen.

Athletic sports and all kinds of physical activity are encouraged. The program of intercollegiate athletics includes a great variety of seasonal competitive games and thus promotes maximum participation by members of the student body. The University fosters an unusually extensive program of intramural athletics, involving participation of about two-thirds of the male student body. Every effort is made to provide each interested student with the opportunity to participate in a healthful form of competition and to learn teamwork and good sportsmanship.

RELIGIOUS INTERESTS AND ACTIVITIES

The interest of the University in the religious life of students is expressed in the encouragement and support which it extends to the University YMCA and YWCA. These associations are campus-centered groups which seek to meet the religious interests and needs of the student body. They are staffed by theologically trained persons. Membership is open to students of any religious persuasion.

Just as important to the religious life of students are the various foundations which represent the major Protestant denominations, the Roman Catholic Church, and the Jewish faith. These foundations, located near the campus, are directed for the most part by ordained clergy who are sent to work with students and faculty by state and national religious groups. The churches of Chapel Hill also provide an effective ministry of worship and religious education to the University community.

Opportunities for nonsectarian religious instruction are offered as regular courses in the Department of Religion.

TESTING SERVICE

The facilities of the University Testing Service are available without charge to all University students to assist them in selecting an appropriate academic major and ultimate vocation. Students who request this service receive a comprehensive series of tests and are interviewed by experienced vocational counselors. An occupational information library is maintained for student use. Students who are having academic difficulties, who are in doubt as to a suitable academic major, or who have been unable to make satisfactory long-range vocational plans may find these services of particular value. Additional information on this service may be found in Part V.

PLACEMENT SERVICE

Through its placement facilities the University aids students and alumni in solving the problem of postgraduate employment. Registration is voluntary, and there is no charge for the service.

The Placement Service assists students and alumni to find permanent employment and coordinates all campus recruitment and the placement of graduate students. The professional schools assist directly in the placement of their graduates. Registration with the Placement Service assures a complete and permanent personnel file, including a summary of college activities and confidential ratings from faculty members, which is available to employers upon request.

In addition, student-employer interviews are arranged on the campus throughout the year, and occupational information and company literature are available for student use. The Placement Service also makes available information regarding postgraduate scholarships and temporary summer employment.

STUDENT GOVERNMENT

No detailed body of rules is designed to govern student behavior. High standards of personal integrity under the Honor System and of reputable conduct under the Campus Code constitute the core of student responsibility. The student councils, composed entirely of student members, are the responsible courts in which violators of the Honor System and the Campus Code are tried. If found guilty, a student may be suspended from the University for an indefinite period. Among the offenses traditionally requiring suspension are cheating, stealing, lying, drunkenness, and gambling.

The student body of the University is self-governing. The disciplinary and administrative functions of representative government are exercised by executive, legislative, and judicial branches in accordance with the provisions of a student constitution. The president of the student body, assisted by the vice-president, the secretary, and the treasurer, is the chief executive officer. Legislative functions are exercised by the Student Legislature, which has the responsibility for the annual budget, for the supervision of certain committees, and for the proper performance of many constitutional duties; and by the Women's Residence Council, which is responsible for drafting rules for women students and for coordinating women's activities. The judiciary comprises the Student Council, the Men's Council, the Women's Council, and special councils for dormitories, fraternities, and professional schools. The Interdormitory Council regulates living conditions in the men's dormitories. The Interfraternity Council is the governing body for social fraternities and attempts to unify programs and action of the various chapters. The Panhellenic Council, composed of representatives of the sorority chapters, is a clearing-

house for common problems, the regulating group for rush week, and the sponsor of various projects.

Names of 1961-62 student officers and council members are listed in Part VI.

STUDENT PUBLICATIONS

The Publications Board of the University is the publishing agency for *The Daily Tar Heel,* the student newspaper, and *The Yackety Yack,* the student yearbook. The Board is composed of two faculty members appointed by the Chancellor, four student members elected by the student body, and a representative of the Student Legislature. The Board controls the financial policies of the two publications, which are financed by appropriations from student fees and by receipts from advertising. The content of each publication is prepared and edited by students, under the supervision of an editor elected by the student body.

The Carolina Quarterly, an independent student publication, is published each December, March, and May.

Parlance, a critical review of campus affairs, made its first appearance in 1961 under the sponsorship of the YMCA-YWCA.

RECOGNITION OF DISTINGUISHED ACHIEVEMENT

The Alpha of North Carolina Chapter of Phi Beta Kappa and many other honor societies, orders, and fraternities recognize by invitational membership those students of good character who make outstanding records of achievement in general or specialized scholarship, in leadership, and in constructive exercise of other talents. Part VI of this catalogue contains a descriptive list of these honorary organizations, as well as a list of medals and prizes for distinguished achievement in designated activities.

STUDENT ORGANIZATIONS AND ACTIVITIES

Illustrative of the range of individual and group interests represented in student activities is the following incomplete list of organizations. Further information may be secured from the Office of the Assistant Dean of Student Affairs.

DEBATE AND DISCUSSION: *The Dialectic and Philanthropic Literary Society* combines in one organization the two historic debating societies established in 1795. Before merging in 1959, the traditional rivals had for some time been known as "The Senate of the Dialectic Literary Society" and "The General Assembly of the Philanthropic Literary Society." *The Debate Council,* an outgrowth of the debating societies, is composed of student representatives of the forensic squad and faculty advisers. *The Carolina Forum,* in cooperation with other organi-

zations, brings to the campus speakers of national and international reputation in various areas of public interest.

FOREIGN LANGUAGES AND CUSTOMS: *Le Cercle Français, El Club Español,* and *Delta Phi Alpha* (honorary German fraternity) meet regularly for informal programs and discussion in the language of the country represented by the club. *The Cosmopolitan Club,* an organization for foreign students, brings various nationalities together in common educational and social activities.

MUSIC AND DRAMATIC ART: Musical organizations open to students and faculty include the *University Symphony Orchestra,* the *University Band,* the *University Chorus,* the *Chapel Hill Choral Club,* and the *Men's Glee Club. The Carolina Playmakers,* the University dramatic organization, affords opportunity for student participation in writing, producing, and acting. For further information see Part V.

RELIGIOUS ORGANIZATIONS: In addition to active participation in the religious, social, and welfare programs of the *YMCA-YWCA,* students have abundant opportunities to affiliate with denominational groups having a close relationship to their respective churches and foundations in Chapel Hill.

SOCIAL ORGANIZATIONS: *The University Dance Committee,* composed of representatives from several campus organizations, authorizes and supervises University dances. Many dormitories have organized social programs for their residents. *The Carolina Women's Council,* representing dormitory and town groups of non-sorority women students, sponsors activities for the development of social, civic, and intellectual interests of the members of these groups. *The Chapel Hill Club,* open to town residents, provides an organization for local women students and aids in the orientation of freshman women.

Twenty-four national fraternities and seven national sororities have active chapters at the University. Four professional fraternities also maintain houses.

SPORTS AND SPORTSMANSHIP: Organized intramural activities provide competitive sports and recreational activities. Competition within the fraternity division and the dormitory-independent division is followed by a play-off between division champions. Badminton, fencing, and dance clubs are also sponsored. The *Women's Athletic Association* provides for every woman student opportunities for recreational activities and sports tournaments. The *University Club* seeks to promote good sportsmanship in all University competitive events. Pep rallies are sponsored and visiting teams entertained.

Part Two

ADMISSIONS, EXPENSES, SCHOLASTIC ELIGIBILITY

ADMISSIONS

Unless otherwise specified, admissions to all undergraduate curricula are under the jurisdiction of the Director of Admissions, from whose office application forms may be secured. The completed forms, with required evidence of eligibility, should be submitted to the Director of Admissions at least fifteen days before the beginning of the semester in which the applicant desires to enroll.

Applicants for admission to the Graduate School, or to one of the professional schools requiring a minimum of three years of college work before admission, should consult the appropriate special catalogue and apply directly to the dean of admissions officer of the school in which admission is sought. Visiting students in the Summer Session (those wishing transfer or certificate credit only) should make application to the Director of the Summer Session.

GENERAL REQUIREMENTS FOR ADMISSION

1. Minimum age of 16 by date of intended registration.
2. Satisfactory evidence of good character.
3. Applicant's medical report properly completed by his physician on a form sent to the applicant with the notification of his acceptance. This form must be received by the Director of Student Health Service in time for official clearance before the student registers. (Students readmitted after a year or more of absence from the University must also submit a completed medical form supplied by the Director of Admissions.)
4. Satisfactory record of scholastic achievement. The minimum evidence of academic promise presented below as "Additional Requirements" does not assure automatic admission, especially in the many instances of limited quotas. For cause the Committee on Admissions may disapprove any application.
5. Nonresidents of North Carolina are required to pay a $10.00 non-refundable application fee. Residents of North Carolina are not required to pay the application fee.

ENROLLMENT DEPOSIT

Applicants who are admitted as regular students in the University are required to remit a deposit to signify their intention to enroll, effec-

tive for the term beginning in June 1961, and for each subsequent term thereafter.

Any applicant who is accepted for admission to the University of North Carolina must deposit with the University Cashier $25.00 no later than the date specified in his or her notification of admission. The approval for admission will be tentative until the deposit is received and until all required final academic records are received. If the deposit is not received by the time specified, the applicant's acceptance will be continued only if space in the University is available.

If, after making the deposit the applicant changes his decision, he may obtain a refund in the amount of $20.00 provided he notifies the Director of Admissions of the University that he will not enroll. No refund will be made to applicants who cancel admission after July 1. All applicants who actually enroll will receive credit for the $25.00 deposit on their University bill. Prospective students who desire to reserve a dormitory room must make a separate room deposit.

An applicant who is admitted within two weeks of the registration period must remit the deposit of $25.00 immediately.

ADDITIONAL REQUIREMENTS FOR SPECIAL GROUPS

FRESHMEN

1. Certificate of graduation (or equivalent) from an accredited high school and a satisfactory recommendation from the school last attended. (In exceptional cases, admission by special examination may be possible.)

2. Fifteen acceptable units of high school credit including—for admission to the General College—the following specific subjects: English, 4 units; one foreign language, 2 units; algebra, 1½ units; plane geometry, 1 unit; History of the United States, 1 unit; a natural science, 1 unit. Of the 4½ elective units counted in the total of 15, not more than 4 may be in vocational subjects. Admission with deficiencies in algebra (1½ unit), in plane geometry (1 unit), in foreign languages (2 units) may be granted to high school graduates whose records are otherwise acceptable, provided the applicant presents fifteen other acceptable units. Removal of deficiencies [1] before registration for the first semester is desirable, and all deficiencies must be removed before registration for the third semester.

Beginning with the class entering in September 1962, the units required for admission will be as follows: English, 4 units; one foreign

1. The following methods are authorized: *Algebra*—passing equivalent mathematics course in the General College or special examination given by Department of Mathematics or summer work at an approved high school; or Mathematics c1 offered by the Correspondence Bureau; *Plane Geometry*—passing special examination given by Department of Mathematics, a course offered by Correspondence Bureau of University Extension Division, or summer work at an approved high school; *Foreign Language*—passing equivalent elementary courses in the language offered in the General College.

language, 2 units; algebra 1½ units; plane geometry, 1 unit; History of the United States, 1 unit; a natural science, 1 unit; 2½ academic units elective and 2 electives in non-academic or vocational subjects.

3. Satisfactory scores on the Scholastic Aptitude Tests of the College Entrance Examination Board (P. O. Box 592, Princeton, New Jersey). Prospective applicants should write to this address, requesting an official test application form and a copy of the Bulletin of Information.

4. Transfer applicants with less than sophomore standing must meet all entrance requirements of freshmen including satisfactory scores on the Scholastic Aptitude Tests, have a *C* average on all work undertaken at other institutions as well as a *C* average on work accepted for credit at the University.

5. For other than General College admission, any special requirement of the school or curriculum to which the applicant seeks admission.

WOMEN STUDENTS

A general requirement for admission of women applicants is satisfactory completion of at least two years of acceptable college work in another accredited college or university. This requirement does not affect the eligibility of a woman who is living in her permanent and bona fide home with her parents or her husband in Chapel Hill Township, or of a woman applying for admission to one of the following schools or programs: Dental Hygiene, Medical Technology, Nursing, Pharmacy, or Physical Therapy. The mechanics for review of transfer women applicants is quite different from that of the men, and a woman applicant must follow closely the procedure outlined in the letter of instructions accompanying each application.

NONRESIDENTS OF NORTH CAROLINA

A personal interview with a representative of the University and additional information supplementing that included in the application and transcript may be required of nonresident applicants.

TRANSFER STUDENTS

At least fifteen days before the opening of the semester in which he desires to enroll, a student seeking admission by transfer of credits is required to have all transcripts of previous college or university records forwarded to the Director of Admissions by the proper official at the institution or institutions attended. By the same date he must submit his application on a form secured from the Director of Admissions.

Even though no transfer of credit may be involved, all previous college or university experience must be certified by transcripts or records of attendance.

Effective with the class entering in September 1960, transfer students may be required to make satisfactory scores on special tests for admission. Scores on these tests may be used with the previous academic records of students as a basis for admission, the final decision resting with the Advisory Committee on Admissions and Records.

Evaluation of transcripts is based on University requirements, not on those of the institution previously attended. At least a *C* average on work taken elsewhere is required for consideration of the applicant's admission. A course completed with the lowest passing grade at another institution may not be counted as hours credit toward University graduation but may be used to meet a subject requirement. Not more than sixty-four semester hours (exclusive of hygiene and physical education) may be transferred from a junior college.

Any record submitted for evaluation may be rejected or partly disallowed. Validating examinations may be required in any or all subjects and may be required for work done at non-standard or non-accredited institutions. The State Department of Public Instruction determines accreditation of all the colleges in North Carolina. Elsewhere, accreditation is by state departments of education, state universities or institutions of comparable rank, or by regional accrediting agencies.

In exceptional cases, students may secure the equivalent of transfer credit by passing previously arranged special examinations in subjects in which they have systematically acquired knowledge under conditions which did not permit the earning of transferable credit. Freshmen whose high school records and pre-entrance tests show unusual achievement and promise may begin some work at the second-semester or sophomore level. Advanced sections for superior students are available.

ADMISSION TO UPPER COLLEGE OR SCHOOL

Students admitted to advanced standing are assigned credits equivalent to specific required or elective courses included in the various degree programs of the University. Admission to the College of Arts and Sciences or to one of the undergraduate professional schools is based in principle on the regulations governing the transfer of General College students to the upper college or school. See "Transfer from General College," page 38, for regulations concerning students admitted after June 1, 1960. All deficiencies in the selected pattern of courses leading to a degree or in other requirements for transfer from the General College must be removed at the earliest opportunity.

Students transferring from other institutions to the upper college or schools are required to take the sophomore test of proficiency in English at or before the time of initial registration in the University.

ADMISSION TO NON-DEGREE PROGRAMS

With the approval of the dean of the college or school concerned, non-degree programs may be undertaken by "special" students twenty-one years of age or over who wish to take additional work beyond their earned bachelors degrees to qualify for admission to the Graduate School or a professional school and by others who desire to improve themselves professionally. Application, accompanied by satisfactory evidence of the student's ability to profit by the program, is made to the Director of Admissions, preferably after an interview with the dean of the college or school. If the application is accepted, the student is admitted on probation and must pass all work undertaken (at least fifteen semester hours except by permission of his dean). Applications for non-degree summer work by students not planning to be regularly enrolled in the University are to be sent to the Director of the Summer Session.

EXPENSES

According to a current estimate, the average male student, if a resident of North Carolina, incurs necessary expenses approximating $711.50 for subsistence and $369 for tuition, fees, textbooks, and supplies during an academic year (two semesters) at the University. The estimate is based on the assumption that this "average student" rooms in a University dormitory ($171.50), spends about $2.25 daily for meals ($500), and pays laundry charges equal to deposits required of those who use the University Laundry service ($40.00). These basic subsistence costs account for approximately two-thirds of the combined necessary-expense estimate ($1,080.50).

TUITION AND OTHER INSTRUCTIONAL EXPENSE

The University reserves the right to make, with the approval of the proper authorities, changes in tuition and other fees at any time.

A nonresident student must pay a higher rate of tuition than a legal resident of North Carolina. (See page 29 for information on residency.)

The following tuition charges, payable at the beginning of each semester, are required of all students in the colleges, schools, and curricula listed in the schedule of fees:

Residents of North Carolina	$ 87.50
Nonresidents of North Carolina	300.00

See Graduate School Catalogue for tuition charges for graduate students registering for less than ten semester hours.

In addition to tuition charges indicated above, certain fees, also payable at the beginning of each semester, are required of all students. These fees include costs of registration, use of library, infirmary, physical education and athletic facilities, materials, student activities and publications, and (in some instances) professional memberships and publications. The aggregate amount of these regular fees required of a student in a particular college, school, or curriculum is shown below. Not included in these aggregates are special fees and charges for certain courses in art, applied music, German 101x and 102x, social work, and public health. Amounts of these special fees are stated in the descriptions of courses in Part IV.

Schedule of Fees

General College, College of Arts and Sciences, Schools of Business Administration, of Education, and of Journalism	$52.00
Graduate School, School of Library Science	47.00
School of Social Work (1st year and spring semester 2nd year)	44.03
School of Public Health (Undergrad.)	60.25
School of Nursing	57.75
Dental Hygiene Curriculum	56.00
Medical Technology and Physical Therapy Curricula	50.25

Information concerning tuition and fees in professional schools not listed above will be found in the special catalogues of the schools.

Neither textbook costs nor breakage deposits on equipment used in some courses are included in payments made to the University Cashier. Textbooks and other individually purchased instructional materials, estimated to cost about $45.00 each semester, are made available at standard prices by the University Book Exchange.

RECAPITULATION: PAYMENTS TO UNIVERSITY CASHIER

By North Carolina male resident, entering in fall semester as General College freshman, living in dormitory, and using University Laundry.

Item	*Payable*	*Amount*
Room Deposit	Upon Application for Room	$ 85.75
Laundry Deposit	At Registration	20.00
Tuition	At Registration	87.50
Fees	At Registration	52.00
TOTAL REGULAR PAYMENTS FALL SEMESTER		$245.25

INCIDENTAL FEES

CREDIT OBTAINED BY SPECIAL EXAMINATION: A fee of $1.50 per semester hour of credit secured is required of an applicant who takes examinations for advanced standing.

TRANSCRIPT OF RECORD: One transcript is provided without charge. There is a charge of $1.00 for each additional copy.

GRADUATION FEE: Each candidate for a degree is required to pay a fee of $10.00 when he makes formal application for the degree. (Cap and gown rental fees are $3.75 for recipients of bachelors' degrees; $7.00 for recipients of masters' and doctors' degrees.)

PAYMENT OF BILLS: Bills for tuition and fees are payable at the time of registration or at the Cashier's Office according to an announced schedule beginning on the first class day of the semester or summer session. Failure to pay or to make proper arrangements for payments results in the assessment of an extra fee of $5.00.

For lateness penalty charges and partial refunds upon withdrawal, see "Regulations."

HOUSING, FOOD, LAUNDRY AND LINEN SERVICES

The University reserves the right to approve the housing of all students whether they live on or off the campus. By Trustee action the administration is authorized to establish minimum standards of health, safety, and general welfare in regard to housing and to require that students maintain their residence in quarters which comply with these standards.

UNIVERSITY-OPERATED FACILITIES

DORMITORY ACCOMMODATIONS—MEN: The University provides dormitory residence for approximately half of its male enrollment. A new student who, upon notification of his acceptance, desires a dormitory room should send to the University Cashier a deposit of $85.75, covering the fall semester's room rent, with the reservation card which accompanies his notification of acceptance. The rental charge of $171.50 per year is payable in advance as follows: upon application for room, $85.75 for fall semester; by January 22, $85.75 for spring semester. The reservation deposit, less $10.00, is refundable on cancellations made by July 1. Assignments to rooms are made in the order in which applications are received. After July 1, rent payments are not refundable except for: illness which prevents enrollment; withdrawal because of illness; military draft; death in the family; or dismissal for disciplinary reasons.

DORMITORY ACCOMMODATIONS—WOMEN: Undergraduate women not living in their own bona fide homes in Chapel Hill are required to occupy approved University residences unless permission to live elsewhere has been granted, in exceptional cases, by the Dean of Women. Women in the graduate and professional schools may request rooms in Kenan Hall or reside in the town of Chapel Hill.

A new woman student who desires a dormitory room should send to the University Cashier a deposit of $110 with the reservation card which accompanies her notification of acceptance. Room assignment is made by the Dean of Women who notifies the applicant and sends further information and instructions. The normal rate in a room for two occupants is $220 per person for the regular academic year, payable in advance as follows: upon application for room, $110 for the fall semester, and by January 10, $110 for the spring semester. The reservation deposit, less $25.00, is refundable on cancellations made by July 1. After July 1, rent payments are not refundable except for: illness which prevents enrollment; withdrawal because of illness; death in the family; or dismissal for disciplinary reasons.

Residents of Spencer Hall are required to board at the dining room in that dormitory at a cost of approximately $200 per semester for meals. Bills for board at Spencer Hall will be issued after registration each semester.

DORMITORY ACCOMMODATIONS—GENERAL: After registration, rent for dormitories and board at Spencer Hall will not be refunded unless the student withdraws from the University during the first nine weeks of a semester because of illness, death in the family, or disciplinary reasons.

Rent does not cover occupancy during holiday periods.

All rooms are furnished, but students provide pillows, bed linen (for single beds), blankets, towels, and curtains. University pillow, linen, and blanket rental service is described on page 26.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Sale or transfer of a student's right to occupancy will be considered a fraudulent transaction and will result in forfeiture of the room by the lessee and the room becomes available for assignment by the University Housing Office.

The University reserves the right to make room inspections to insure compliance with rules and regulations whether or not the occupants are present.

The University reserves the right to require any student whom it considers, for any reason, an undesirable tenant to vacate a dormitory room.

The occupant of a room will be held directly responsible for all damage done to his room and its furniture.

No pets may be kept in University dormitories or housing units on penalty of forfeiture of right of occupancy. Outside aerials, cooking appliances, air conditioning units, and other electrical equipment may not be used without specific approval by University authorities.

DORMITORY TENANCY: Students already in residence desiring to retain rooms for the next academic year must make application as follows:

Men: Pay $10.00 deposit to the University Cashier, and file a room reservation card with the Director of Housing by a date announced by the Director of Housing.

Women: Pay $25.00 deposit to the University Cashier, and file a room reservation card with the Dean of Women by a date announced by the Dean of Women's Office.

Room assignments and advance registration will be canceled and the deposit forfeited unless rent is fully prepaid by July 1.

Room reservation for either of the two summer terms is made upon payment of the full amount of rent for one term, refundable if cancellation is received at least one week before registration.

HOUSING UNITS FOR MARRIED STUDENTS: The University has a limited number of housing units available for married students. It is the general policy of the University to give prior consideration to the applications of graduate students and especially to graduate assistants. The apartments are unfurnished. However, the University has available electric stoves and refrigerators for use in the newer apartments at a small monthly rental fee. The rental rates are based on the accommodations furnished. The minimum rent for the newer apartments is $60.00 a month plus $7.00 a month for stove and refrigerator. Early application to the Director of Housing is urgently recommended. Married students, especially married foreign students, should not bring their families to Chapel Hill until their housing arrangements have been settled.

BOARDING ACCOMMODATIONS: In addition to the room-and-board accommodations for women residing in Spencer Hall the University operates conveniently located cafeterias at Lenoir Hall, the Carolina Inn, and a dining room in the Monogram Club. Well balanced meals are served at standard prices for cash payment according to usual cafeteria practice.

LAUNDRY AND LINEN SERVICE: Finished laundry service at reasonable cost is provided by the University Laundry Department to students who wish to use it. An initial deposit of $20.00 is made at the beginning of each semester. Laundry is picked up at and delivered to the student's rooming quarters. Any unused deposit balance is refunded at the end of the year.

Wash-dry-fold service (nothing ironed) is available at any of the University linen rental stations. This is an economical, cash and carry service and is separate from the finished laundry service.

For students who do not wish to provide their own linen, the University will furnish two sheets, one pillow case, and three bath towels each week on an exchange basis. This service is available at the laundry plant, the downtown University Laundry Office or at convenient stations on the campus. A fee of $20.00 for the school year (September through May) is payable when this service is requested.

Pillows may be rented for $1.50 a school year. They can be secured from the linen rental stations. Plans are underway to make blankets available for rental. An announcement will be made about blanket rental before the opening of the University for the fall semester, 1962.

FINANCIAL AID

Opportunities for financial aid, though not unlimited, are within the reach of almost every student who can show both superior academic achievement and definite financial need. The student who realizes that he will be unable to meet University expenses without assistance should determine the approximate amount of assistance needed per semester and take early initiative in seeking information from the Director of Student Financial Aid and file applications for one of the three principal types of available aid indicated below.

I. FELLOWSHIPS AND SCHOLARSHIPS: Endowed scholarships listed in Part VI represent varied bases of award and a wide range of monetary value. Not included in the list are certain annual contributions and grants not on an endowment basis. Scholarships open to students in the schools of Dentistry, Law, Library Science, Medicine, Nursing, Public Health, and Social Work are described in special catalogues of those schools.

All applications for scholarships by undergraduates must be filed in the Student Financial Aid Office and should be submitted by April 1, in the regular form prescribed by the University. The Director of Student Financial Aid will supply forms on request. The University Scholarship Committee makes annual awards on or about May 1 and others from time to time during the year. Address inquiries to the Director, Student Financial Aid Office, Box 1330, Chapel Hill, N. C.

II. STUDENT LOANS: The Loan Funds listed in Part VI reflect the sympathetic interest and generosity of many donors. With few exceptions, the combined resources of these funds are administered by the Student Financial Aid Office under the uniform policy and regulations stated below:

The University, within available loan funds, makes loans to students on the basis of applications showing a detailed analysis of the individual's necessary University expenses and his available income from sources outside the University, along with a record of the applicant's academic achievements and a statement of his educational objective.

Student loans are administered subject to the following regulations:

1. Any loan must be for necessary educational expenses and shall not exceed $1,000 in any one twelve-month period or a total of $5,000 for any student. The Loan Fund Committee may limit loans to one student to an amount less than $5,000.

2. Loans will be made only to students who demonstrate need for financial assistance and capability of maintaining good standing. Entering students may apply provided they have good to superior academic ability.

3. Loans shall bear 3 per cent interest. No payments on principal shall be required and no interest shall be charged while a student is enrolled on a full-time basis in the University of North Carolina. At the request of the borrower, interest and payments on principal may be waived for a period of not more than three years while the borrower is in military service. In accepting this waiver the borrower agrees to notify the Manager of the Student Loan Funds of his address and status on July 1 of each year.

4. Loans may be made without collateral and without endorsement to students twenty-one years of age or over, who are deemed competent to execute a legal contract in the state of North Carolina. Loans made to students who are under twenty-one will require endorsement.

5. Loans are to be repaid according to a periodic plan of repayment agreed upon by the borrower and the Manager of the Student Loan Funds. Loans must be repaid within ten years. The period of repayment may be extended under justifiable circumstances.

Inquiries about loans should be directed to the Director of Student Financial Aid, Box 1330, Chapel Hill, N. C.

III. SELF-HELP WORK: There are part-time jobs available for several hundred students wishing to earn a part of their expenses. Students work in the libraries, dining halls, dormitories, book stores, gymnasium, laboratories, and other University divisions and offices.

Jobs off campus, in Chapel Hill homes and business firms, are not assigned by any committee or division of the University. Such jobs are secured by the student's effort, the University's Director of Student Financial Aid helping wherever possible.

All University part-time jobs for students are assigned by the Student Financial Aid Committee to those students who are, in the

judgment of the Committee, most urgently in need of help, on the bases of each applicant's scholastic achievement, financial need, good character, and willingness to work. Although the Committee gives priority to those students who genuinely need help, it tries, through the Student Financial Aid Office, to help any student find part-time work who seeks assistance in locating such work.

Part-time jobs, on and off the campus, require real work, punctuality, and dependability.

Some students find it difficult to do part-time work and carry successfully a full schedule of academic work. In general, first-year students are urged, if their financial needs permit, to devote full time to their studies and related activities. Many students conclude that it is wise to seek loan assistance from the University or from private sources rather than to devote three or four hours daily to part-time work.

All requests for information about and applications for self-help work should be mailed to the Director of Student Financial Aid, Box 1330, Chapel Hill, N. C. Applications should be mailed to that officer by April 1, after which jobs are assigned for the next academic year.

FREE TUITION is available only to residents of North Carolina who have permanent physical handicaps. For information and application forms, address the Director of Vocational Rehabilitation, State Department of Public Instruction, Raleigh, N. C.

REGULATIONS

The personal conduct of the University student is subject to the moral and legal restraints found in any law-abiding community. The Honor System and the Campus Code are positive forces for good citizenship, not exemptions from its sterner responsibilities. Though the faculty holds an expressly stated mandate from the Board of Trustees to dismiss students known to be guilty of offenses against the peace and moral tone of the campus, the exercise of this authority is rarely necessary.

University regulations, therefore, are not specifications for acceptable conduct or detailed lists of offenses subject to penal action. They are intended to provide an informational basis for systematic procedures and equitable decisions in many situations involving individual students and officers of the University.

In publishing these regulations, the University does not recognize any implied contract as having validity beyond the succeeding academic year. The faculty reserves the right to make changes in cur-

ricula and in regulations when in its judgment such changes are for the best interest of the students and the University. Ordinarily a student may expect to secure a degree by meeting the requirements of a curriculum specified in the catalogue currently in force when he first entered the University, or in any one subsequent catalogue published while he is a student; but the University is not obligated to fulfill this expectation or to offer in any particular year a course listed in the catalogue.

TRANSACTIONS INVOLVING RECORDS AND PAYMENTS

REGISTRATION: All students are required to register in accordance with the procedure established for the current year. New students must present evidence that their medical reports have been properly certified to the Director of Student Health Service. A student registering later than the time designated for his registration must pay an additional fee of $5.00 for delayed registration. If the delay results from circumstances clearly beyond the student's control, an appeal may be made in writing to the Chancellor, provided that the appeal shows sufficient justification for the delay to secure approval by the dean of the division in which the student is enrolled.

Registration for credit for any course is limited to the first three days of instruction unless the late registration is approved by the instructor of the course and the student's dean. Changes in registration are limited to the same three-day period and must be made in accordance with the established procedure, which requires approval of the faculty adviser and permission of the dean.

FALSE INFORMATION: Information filled in on admission and registration forms is instrumental in securing for the student a priority or classification of value. False statements will be considered violation of the Honor System.

A student must make application and register in his legal name as shown on birth certificate or court order authorizing a change. Concealment of required information is falsification of the record.

RESIDENCE STATUS FOR TUITION PAYMENT: The tuition charge for legal residents of North Carolina is less than for nonresidents. A legal resident of North Carolina is one who has his domicile in this state. It is important that each applicant for admission and each enrolled student know his residence status for tuition payment and understand the regulations governing residence status. The following regulations cover most factual situations:

1. A person twenty-one years of age or older is not deemed eligible for the lower tuition rate unless he has maintained his legal residence in North Carolina for at least the six months next preceding the date of his first enrollment in an institution of higher education in this state.

2. The legal residence of a person under twenty-one years of age at the time of his first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court order to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is still living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

3. The residence status of any student is determined as of the time of his first enrollment in an institution of higher education in North Carolina and may not thereafter be changed except: (a) in the case of a nonresident minor student at the time of his first enrollment whose parents have subsequently established legal residence in North Carolina; and (b) in the case of a resident who abandons his legal residence in North Carolina. In either case, the appropriate tuition rate will become effective at the beginning of the semester or term next following the date of change of residence status.

4. The legal residence of a wife follows that of her husband, except that a woman student currently enrolled in this institution as a resident may continue as a resident even though she marry a nonresident.

5. Military personnel attached to military posts or reservations in North Carolina are not considered eligible for the lower tuition rate unless they have maintained a legal residence in the state for at least the six months next preceding the date of first enrollment in an institution of higher education in the state.

6. Aliens lawfully admitted to the United States for permanent residence who have established a legal residence in North Carolina according to paragraphs numbered 1, 2, or 4, above, are eligible for the lower tuition rate.

7. Ownership of property in or payment of taxes to the state of North Carolina apart from legal residence will not qualify one for the lower tuition rate.

8. Discretion to adjust individual cases within the spirit of these regulations is lodged in the Vice-President and Finance Officer of the University.

Any student or prospective student in doubt concerning his residence status must bear the responsibility for securing a ruling by stating his case in writing to the Chancellor.

WITHDRAWALS: Honorable dismissal or prospect of readmission may be forfeited by a student who withdraws at any time other than the end of a term without first securing approval by his dean of a formal withdrawal. Three steps are involved: (1) application filed

with the dean; (2) full investigation of circumstances during lapse of twenty-four hours; (3) prompt filing of withdrawal form (after approval by the dean) with a recorder in the Office of Records and Registration (No. 1 Hanes Hall).

If a student withdraws before the middle of a semester, the dean's decision for or against counting that semester as a semester in residence will be indicated on the withdrawal form. If a student withdraws after the middle of a semester and is reported as below passing in three or more courses, that semester will be counted as a semester in residence in all computations of his requirements for readmission.

A student withdrawing within the first week of the semester is charged only a registration fee of $7.00. After the first week, refunds for tuition and fees will be made on a pro-rata basis. The student pays one-tenth of his semester bill for each week he remains in residence. No refunds will be made after the time announced in the "Calendar of Events."

TRANSCRIPTS OF RECORD: A statement of honorable dismissal will not be granted to students whose conduct and character would not entitle them to remain in the University. In every transcript full mention will be made of any probation, suspension, or other temporary restriction imposed for unsatisfactory conduct and still in force when the statement is made.

A statement of record includes all significant recorded information concerning the student's admission, classification, and scholarship. No partial or incomplete scholastic record will be given. If the student's scholarship has been such as to prevent his continuance in the University or to make him subject to any probation, suspension, or other temporary restriction still in force at the date of the record, a plain statement of all such facts will be included. Clear information will be given concerning the grading system and number of class and laboratory hours per week devoted to each course, etc.

REGISTRATION OF ADDRESS: Every student is required to keep on file in the Office of Records and Registration the complete and correct address of his places of residence, both home and local.

ACADEMIC REQUIREMENTS

Unless otherwise stated, the following regulations uniformly govern the academic progress of the student from his first year in the General College through his final semester in the College of Arts and Sciences or one of the three undergraduate professional schools: Business Administration, Education, and Journalism. Variations in the requirements of the colleges and schools may be found in Part III.

EXPLANATION OF TERMS: Quantitative requirements are expressed in terms of *courses* and *semester hours.* A *full course* is one representing three or more semester hours of credit, typically earned in a class which meets for one hour on three alternate days of each week during the semester. Qualitative requirements and achievement are expressed in terms of letter grades and quality-point averages. For the value of letter grades and the computation of averages, see pages 36 and 37.

ACADEMIC WORK LOAD: A student in the General College must take at least five full courses, except by permission of the dean. He may take six courses, representing not more than twenty semester hours, if he made a quality-point average of 2.0 the preceding semester. The maximum load of six courses, representing more than twenty semester hours may be taken only by a student making a quality-point average of 3.0 the preceding semester.

Only half credit is allowed for a required freshman course taken after beginning the junior year or a required sophomore course after beginning the senior year.

A student regularly enrolled in the College of Arts and Sciences, the School of Business Administration, the School of Education, or the School of Journalism must take at least fifteen semester hours of work. He may take no more than seventeen unless he made a quality-point average of 2.0 the preceding semester; no more than eighteen unless he made an average of 3.0; and no more than twenty in any case. If needed for graduation, however, the load of twenty hours may be taken by a senior having an over-all and preceding semester average of 2.0.

When a student's work load is decreased by dropping a course, his dean will determine whether he may remain in residence with less than the minimum load.

CLASS ATTENDANCE: The following legislation by the Faculty Council gives each instructor the authority to prescribe attendance regulations for his class or classes:

"Regular class attendance is a student obligation, and a student is responsible for all the work, including tests and written work, of all class meetings. No right or privilege exists which permits a student to be absent from any given number of class meetings.

"Instructors will keep attendance records in all classes. If a student misses three consecutive class meetings, or misses more classes than the instructor deems advisable, the instructor will report the facts to the student's academic dean for appropriate action."

The instructor is required by the foregoing legislation to keep a record of attendance and to report to the appropriate dean the name of any student absent from three consecutive meetings of a

class. In prescribing attendance regulations for his class or classes, each instructor is required to observe the following administrative regulations:

"The appearance of a student's name on the Infirmary list constitutes an excuse for the student for absences from classes during the period the student is in the Infirmary. This list is circulated to all deans of colleges and schools having undergraduate students. In case of doubt the instructor may check with the office of the student's dean.

"Students who are members of regularly organized and authorized University activities and who may be out of town taking part in some scheduled event are to be excused during the approved period of absence. Notification of such an absence must be sent by the responsible University official to the office of the student's dean where instructors may, should they be in doubt, consult the list."

DROPPING OR QUITTING A COURSE: The grade of a student who drops or is dropped for other than disciplinary reasons from a course in which he is failing at that time is recorded as an *F* unless, in the judgment of his dean, his failure was caused by circumstances beyond his control.

The grade of a student who quits a course without the permission of the dean of his school or college is recorded officially as *F*.

The dean of the school or college in which the student is registered will determine whether a student may remain in residence after having been dropped from or having quit one or more courses.

REGULAR EXAMINATIONS: Final written examinations are required in all courses. (Exceptions, based upon the special types of work done in the course, must have advance approval of the Dean of the Faculty.) A general schedule, announced several weeks before the end of the semester, sets the time for each examination; and no examination (except for laboratory sections) may be held at any time other than that specified in the general schedule, which cannot be changed after it has been announced. No examination-type quizzes may be given during the last six days of classes before the beginning of scheduled examinations. No examination may be held later than 7:00 P.M. Only examinations requiring an exceptional portion of practical work should be longer than three hours.

All regular final examinations must be held in Chapel Hill. In exceptional cases a student may make application to his dean for permission to take examinations *in absentia*. (A fee of $10.00 is charged for each examination so taken.)

A student absent from an examination, or present and failing to submit an examination paper, is given a course grade of *Abs.*, which is equivalent to *F* unless an official excuse and permission to take a

special examination are secured from the Office of Records and Registration. (See "Special Examinations" below.)

The final examination in any course may be taken only by regularly enrolled members of the class whose registration has been certified by class tickets and by students certified as eligible to take a special examination in that course. The certifying authority is the Office of Records and Registration.

Each student taking an examination is required to sign a full and explicit pledge, certifying that he has neither given nor received aid during the examination. The exact pledge statement should be in accord with student Honor Council requirements. The instructor will not report a grade for an unpledged paper.

CREDIT BY EXAMINATION: Students who have gained through independent study or experience knowledge of the content of courses offered by the University for undergraduate credit may, with the approval of the department and school or college involved receive credit for such courses by special examination. Such an examination must be taken before the beginning of the last semester or full summer session before graduation, and the approval of the department and school must be received at least thirty days before the examination is taken.

SPECIAL EXAMINATIONS: New students seeking course credit by examination or removal of entrance conditions may arrange to take special examinations in 1962 as scheduled below.

Tuesday, September 18

8:30 A.M.	11:00 A.M.
Economics	Education
Romance Languages	English
Zoology	German
2:00 P.M.	**4:30 P.M.**
Geology and Geography	Comparative Literature
Psychology	Greek
Art	Physics
Physical Education	Sociology

Wednesday, September 19

8:30 A.M.	11:00 A.M.
Botany	Chemistry
Latin	Business Administration
Journalism	Philosophy
	Dramatic Art

2:00 P.M.	4:30 P.M.
Music	Any examinations made
History	necessary by conflicts
Mathematics	
Political Science	

A student who has received in the University a course grade of *Cond.* may take a special examination as scheduled above, or he may take it with a class completing the same work at any regular examination period within one calendar year after the end of the semester in which the *Cond.* was assigned, provided there is no conflict with a regular examination in a course he is currently taking. A senior in his last semester of residence may take a special examination for this purpose by special arrangement between the instructor assigning the *Cond.* and the student's dean.

Special examinations for officially excused absentees from regular examinations must be taken within one calendar year after the date of absence. Suitable times will be fixed by the Office of Records and Registration and the instructors concerned. (Graduate students may remove the grade of *Abs.* within one calendar year after the date of their next registration in the University.)

Special examinations for making up regular examinations missed by excused absentees will be graded according to the usual system. All other special examination papers will be marked *Passed* or *Failed.*

RECORDS AND REPORTS OF SCHOLASTIC ACHIEVEMENT

At the close of each semester the Office of Records and Registration receives instructors' reports and compiles, for all courses taken by each student, the number of semester hours and the qualitative grades assigned by his instructors. Shortly thereafter a report of the student's achievement during the semester is mailed to his parents or guardian.

To be eligible for the Dean's List (Honor Roll), a student must make a grade of *B* or better on each of the courses he is taking in a given semester and be carrying an academic load of 15 or more semester hours exclusive of required physical education courses.

EXPLANATION OF MARKS: For undergraduates, passing grades are *A* (Excellent), *B* (Good), *C* (Fair), and *D* (Passed.). For graduate students, passing grades, *H, P,* and *L,* are assigned. The grade of *F* (Failed) indicates that the student must repeat the course in order to receive credit for it.

The abbreviations *Cond.* (Condition), *Inc.* (Work Incomplete), and *Abs.* (Absent from Examination) indicate that the course will be graded *F* unless the particular deficiency is removed within twelve months. Passing a special examination changes the *Cond.* to *D.* An

Abs., officially excused or an *Inc.* may be removed without restriction on the grade assigned by the instructor.

Attachment of the symbol (*cc*) to any letter grade indicates marked deficiency in English composition. The (*cc*) permits temporary use of the qualitative grade in maintaining eligibility for continued residence, but final credit for the course will not be allowed until the composition condition is removed; and the student will not be permitted to register for the second semester following that in which he received the (*cc*) unless he has, in the intervening semester, taken a diagnostic test and received instructions from the secretary of the Committee on Conditions in English Composition concerning the amount and kind of remedial work needed to remove the (*cc*).

APPEALS FROM COURSE GRADES: A student, after conference with the instructor concerned, may present in writing to the dean of his school an appeal from a course grade. No appeal may be made after the last day of classes of the next succeeding regular semester. The dean will refer the appeal to the administrative board of his school and the chairman of the department concerned. No change of grade will be made except as a result of the administrative board's decision, which is final.

ACADEMIC ELIGIBILITY

CONTINUED RESIDENCE: In order to remain in residence at the University of North Carolina, undergraduate students in the Division of Academic Affairs admitted after June 1, 1960, must meet the following quality-point average requirements at the beginning of the indicated semester of college work:

Semester	*Minimum Requirement*
3	1.25
5	1.50
7	1.75
9	1.90

Regulations in effect for students admitted before June 1, 1960, may be found in previous additions of the *General Catalogue;* however, the above requirements are optional for students admitted prior to that date provided they have been in continuous residence since admission.

In the computation of a student's average, one semester hour of work passed with a grade of *A, B, C, D,* or *F* is given the numerical value of 4, 3, 2, 1, or 0, respectively, which is then multiplied by the number of semester hours represented by the course. The resulting product is the number of quality points earned by passing the course with the grade received.

The quality-point average for a semester of given period is ascertained by adding the quality points earned in all courses for this purpose and dividing this total by the number of semester hours represented by these courses, including any courses failed. Required physical education courses, courses taken to make up entrance deficiencies, and courses transferred from another institution are not included in the quality-point totals.

The academic eligibility of any student, who has been out of the University for any reason and is applying for readmission, is determined on the 4, 3, 2, 1, 0 quality-point system. Readmission of students to any undergraduate college is permitted only when the applicant for such readmission meets the applicable requirements of the 4, 3, 2, 1, 0 quality-point system, i.e.:

1. To return for a third or fourth semester of college work, an average of 1.25 on all work undertaken in the University;
2. To return for a fifth or sixth semester, a 1.50 average;
3. To return for a seventh or eighth semester, a 1.75 average;
4. To return for a ninth or tenth semester, a 1.90 average.

Students readmitted on this basis will thereafter be continued in the University only as long as they continue to meet the applicable requirements of the new quality-point system.

APPEAL FOR READMISSION: Under exceptionally extenuating circumstances clearly beyond the control of the student and upon the recommendation of the student's dean, an appeal from the foregoing eligibility requirements may be considered by the appropriate readmissions committee.

RESTORATION OF ELIGIBILITY: Eligibility for continued residence or for readmission may be restored only by the completion of sufficient work by a student in the University Summer Session or through correspondence courses of the University of North Carolina to enable him to attain the required quality-point average. Restoration of eligibility by work done at another institution *is not permitted* unless (in exceptional cases) it has been approved in advance by the student's dean and the Director of Admissions.

INTRA-UNIVERSITY TRANSFERS: A student who fails to qualify for readmission or continued residence may not be readmitted to another college or school of the University. A student in residence, academically eligible to continue, may effect a transfer from one school or college in the University only when the transfer meets the applicable requirements of the 4, 3, 2, 1, 0 quality-point system, as follows:

1. To transfer for a third semester of college work, an average of 1.25 on all work undertaken in the University;
2. To transfer for a fourth or fifth semester, a 1.50 average;

3. To transfer for a sixth or seventh semester, a 1.75 average;
4. To transfer for an eighth or later semester, a 1.90 average.

Students transferred on this basis will thereafter be continued in the University only so long as they continue to meet the applicable requirements of the new quality-point system.

Women students eligible only for curricula into which they may be admitted as freshmen will not be permitted to transfer into the General College for programs regularly not admitting women students before the junior year.

APPLICATION FOR READMISSION: A student who has withdrawn from the University during a regular term or who has been out due to academic ineligibility or for any other reason must apply to the Director of Admissions for readmission.

TRANSFER FROM GENERAL COLLEGE: Any student academically eligible to continue in residence is also eligible for transfer to the College of Arts and Sciences or to one of the undergraduate professional schools (Business Administration, Education, or Journalism), provided that he has no outstanding entrance deficiencies; has completed all of his freshman requirements; and has taken the sophomore test of proficiency in English. (See "General College" in Part III.)

A professional school, through its administrative board, may specify required minimum grades for General College courses that are to be counted toward the student's major or as prerequisite to his major field of study.

ADVANCEMENT IN CLASS RANK: The passing of at least 24 semester hours is required for rank as a sophomore; at least 52 for rank as a junior; and at least 90 for rank as a senior.

ELIGIBILITY FOR GRADUATION: The candidate for graduation must meet all requirements for his degree as defined by the college or school which awards it. The last full year of work for the degree must have been done in residence at the University. He must have a quality-point average of 2.0 or better on the courses he has taken in the University, and he is required to achieve this average in a total number of semester hours not to exceed 45 beyond the minimal hours required for the graduation of a student with his major field of study.

PARTICIPATION IN ACTIVITIES

FRATERNITIES: A standing committee of the faculty prescribes the scholastic requirements for fraternity membership and, jointly with the Interfraternity Council, regulates the conduct of the social fraternities. Eligible students may join fraternities after registration at the

opening of any semester under the conditions and regulations currently in effect.

ATHLETICS, DEBATING, DRAMATICS, MUSIC, AND OTHER ACTIVITIES: Student eligibility to participate in extracurricular activities is determined by conferences and associations to which the University belongs and by its own regulations.

Absence from the University for the purpose of participating in activities will not be permitted if the student's parents (or guardian) object.

No team or club will be allowed to be absent more than ten class days in any semester.

Part Three

THE COLLEGES AND THE SCHOOLS

The President and the Chancellor head all the divisions of the University.

DIVISION OF ACADEMIC AFFAIRS

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

The President, the Chancellor, and the Dean of the Faculty head each college and school in the Division of Academic Affairs.

The Committee on Instructional Personnel serves as an advisory committee of the Division.

The General College, the College of Arts and Sciences, six professional schools (Business Administration, Education, Journalism, Law, Library Science, Social Work), and the Summer Session are described in the following pages. (Library, extension, and other special services included in the Division are described in Part V.)

Under the title of each college and school is listed the name of its dean, together with faculty associates or assistants who share regularly the responsibilities of the dean's office. Administrative boards are listed in Part VI.

Special catalogues containing further information are issued by the professional schools and the Summer Session.

THE GENERAL COLLEGE

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean*
CLAIBORNE STRIBLING JONES, Ph.D., *Associate Dean*
ERNEST QUEENER CAMPBELL, Ph.D., MELVIN ARTHUR CHAMBERS, Ph.D., RAYMOND HOWARD DAWSON, Ph.D., CLIFFORD MCCLAIN FOUST, JR., Ph.D., RICHARD LANE FRAUTSCHI, Ph.D., OSBORNE BENNETT HARDISON, JR., Ph.D., ROBERT A. HOWARD, A.M., WILLIAM JULIAN KOCH, Ph.D., ROBERT LAMBERT MCKEE, Ph.D., ISAAC NEWTON REYNOLDS, Ph.D., STUART WILSON SECHRIEST, A.B., FREDERICK CARLYLE SHEPARD, Ph.D., GEORGE EDWARD SHEPARD, Ed.D., WILLIAM RINGGOLD STRAUGHN, Ph.D., *Advisers*

All freshmen and sophomores, except those in the schools of Nursing and Pharmacy[1] and in the Dental Hygiene curriculum, are enrolled in the General College. Some of these students will have entered the University with definite academic or professional goals in mind; from the various programs offered in General College, such a student will probably choose one which leads to the degree of Bachelor of Arts (with a major in any one of about thirty academic departments, professional schools, and special curricula) or to the degree of Bachelor of Science in any one of more than a dozen specified academic and professional areas. He may choose a program which best qualifies him for admission to an advanced professional school. His ultimate educational goal may be reached after one or more years of graduate study.

Many students, on the other hand, enter the University with only tentative plans for long-range programs. For this large group, as well as for those whose original plans are changed by circumstances or shift of interests, the General College provides a basic pattern of required courses and electives, to make possible any necessary change of program, usually without loss of time or credit. Students who, for various reasons, may not expect to remain at the University for a longer period than two years will be assisted in selecting a program of basic and liberal studies essential to balanced development in civic responsibility, occupational fitness, and intellectual breadth of interests. Credits earned in such a program may be later counted toward graduation if the student resumes his work in college.

Each student in the General College receives the personal assistance and encouragement of his adviser in selecting courses, maintaining required scholastic standards, and planning a complete educational program. An effort is made to place each student in classes appropriate to his level of pre-college preparation and achievement. Freshman programs may be modified to enable the conditionally admitted student to take courses in mathematics or foreign languages to remove conditions. The work load and course grades of such a student will be given careful attention by his adviser, who may recommend

1. A student entering the five-year program of the School of Pharmacy is enrolled in the General College during his first year at the University.

extra work in the Summer Session or an additional semester in the General College, especially if health or necessary self-help work limits the student's capacity. (For detailed requirements governing work load, eligibility for continued residence, and transfer from the General College, see "Regulations," Part II.)

Students of superior ability and preparation are given special challenges and opportunities. Those who have completed work in high or preparatory school equivalent to one or more General College courses are encouraged to take special examinations, which if passed will give course credit without grade and enable the student to take the next course in the subject or some other subject not on the usual freshman program. At the discretion of the Dean, any student may be permitted to take such special examinations upon presentation of sufficient evidence of mastery of a subject.

For advanced placement in a subject which continues work begun in high school, requirement of a special examination for advanced standing is usually waived. High school records, pre-admission aptitude tests, CEEB Achievement Tests, and preregistration placement tests enable the General College and departmental advisers to discover students capable of doing advanced work and to place them in class sections with other students of comparable abilities. Such a class may omit one or more freshman courses in a subject and begin at the next higher level. Semester hours' credit without grade for the omitted course or courses is assigned upon completion of the advanced course with grade of *C* or better. (Students passing with less than a *C* will be relieved of the requirement of the omitted course without semester hours' credit.)

THE GENERAL COLLEGE PROGRAM: BASIC PATTERN

With the exceptions and limitations noted hereafter, all General College students are required to complete in their freshman and sophomore years a program of twenty selected courses as well as the required courses in hygiene (one semester) and physical education (4 semesters). The twenty courses are ordinarily distributed as follows: *three* courses in English (English 1, 2, 21); *three* courses in the social sciences (Modern Civilization 1, 2, one other); *three* courses in one foreign language (or four courses if the language chosen is other than a high school foreign language presented to meet entrance requirements); *three* courses in natural (laboratory) sciences, including at least one biological science (botany, zoology, psychology) and at least one physical science (the third course may be either, or it may be sophomore mathematics); *two* courses in freshman mathematics or in Greek or Latin; *six* additional courses, which in some programs may be freely chosen by the student from a list of electives (see page 48), in other programs will include specified courses required for the particu-

lar degree. See "College of Arts and Sciences" for identification of humanities courses, natural science courses, and social science courses.

The General College requirements for the various undergraduate degree programs are shown on the following pages, with the several degrees listed in alphabetical order. In each case, the reference is to the catalogue page number where a statement of the four-year requirements for that degree will be found. Particular notice should be taken that (1) Bachelor of Science programs generally require freshman mathematics, (2) students who choose Greek or Latin instead of freshman mathematics must satisfy the foreign language requirement with a modern language (French, German, Russian, or Spanish), (3) some Bachelor of Science programs limit the choice of foreign language, and (4) two years of military science completed in the General College will count as two elective courses of the twenty courses required in the freshman and sophomore years. See "Air Science" and "Naval Science" in Part IV for full information on officer-training programs.

THE FRESHMAN AND SOPHOMORE HONORS PROGRAM

For exceptionally well-qualified students in the General College, a program of honors study is provided under the direction of the Faculty Council on Honors. This program is invitational and highly selective. To the Freshman Honors Program the Council each year appoints about fifty entering students who are considered the most promising members of their class. These students are placed in special, reserved sections in their required General College courses in modern civilization, English, and mathematics. In most other courses, they are placed in advanced (or A) sections. The advanced sections provide special, coordinated instruction by selected members of the faculties of the sponsoring departments. Drill in fundamentals is left largely to the individual students in these sections, and major emphasis is placed on systematic analysis of basic concepts and theory and on individualized reading and research projects. Members of the freshman honors group are expected to maintain a 3.0 (*B*) average; students in the regular General College program who have achieved high academic standing (generally a 3.5 average) may be invited to join the honors group during the year. All those who successfully complete the Freshman Honors Program, and other students who demonstrate outstanding ability, are invited to participate in the Sophomore Honors Program, in which they continue to enroll in advanced sections and are directed toward programs of departmental honors in the upper colleges. Successful completion of each phase of the General College program of honors study is entered on the student's record, along with other academic distinctions.

ADVANCED SECTIONS

Several departments provide advanced sections in many of the courses offered to students in the General College. Except for those reserved for students in the Honors programs, these advanced sections are open to all students in the General College who maintain a *B* average, or who have demonstrated outstanding ability in some particular field or fields of study, and eligible students are encouraged to register for advanced sections so that they can benefit from the more challenging programs of study.

Advanced sections are now offered by the departments in the following courses:

Anthropology 41
Chemistry 11, 21, 43, 61, 62
Economics 31, 32
English 2, 21, 23
French 1, 2, 3, 4, 21
German 1, 2, 3, 4
Greek 1, 2
History 21, 22, 48, 49
Latin 1, 2, 3, 4, 21
Mathematics 15, 31, 32, 33
Modern Civilization 1, 2
Philosophy 21, 41, 70
Political Science 41
Psychology 26
Sociology 51
Spanish 1, 2, 3, 4, 21

Information about the Freshman and Sophomore Honors programs, and about the advanced sections in various courses, will be provided by the adviser to honors students in the General College.

GENERAL COLLEGE REQUIREMENTS OF UNDERGRADUATE DEGREE PROGRAMS

Bachelor of Arts

(See also page 51.)

English 1, 2, 21; Modern Civilization 1, 2, one other social science; foreign language 3, 4, 21 (or 1, 2, 3, 4); three natural sciences (or two with sophomore mathematics), including at least one biological and one physical science; two courses in freshman mathematics or in Greek or Latin; six additional courses; required hygiene and physical education. (See departmental listings in Part IV for major requirements in the College of Arts and Sciences for the Bachelor of Arts degree.)

Bachelor of Arts and Laws

(For complete program see page 56.)

Bachelor of Arts in Education (Elementary)

(See also page 73.)

English 1, 2, 21; Modern Civilization 1, 2; History 21; foreign language 3, 4, 21 (or 1, 2, 3, 4); Geography 38 and two other courses in natural science, at least one of them biological; two courses in freshman mathematics or in Greek or Latin; six additional courses, including History 22 and Music 41; required hygiene and physical education.

Bachelor of Arts in Education (Secondary)
(See also page 67.)

English 1, 2, 21; Modern Civilization 1, 2; foreign language 3, 4, 21 (or 1, 2, 3, 4); three courses in natural science or sophomore mathematics, including at least one biological science and one physical science; two courses in freshman mathematics or in Greek or Latin; seven additional courses, including at least one from anthropology, economics, history, philosophy, political science, or sociology and including, for those preparing to teach social sciences in high schools, History 21, 22 and Political Science 41; required hygiene and physical education.

Bachelor of Arts in Journalism
(See also page 76.)

Same General College requirements as for Bachelor of Arts (above). Students are advised but not required to elect Political Science 41.

Bachelor of Science in Bacteriology
(See also page 115.)

English 1, 2, 21; Modern Civilization 1, 2; French or German 3, 4, 21 (or 1, 2, 3, 4) or Russian 1, 2, 3, 4; Chemistry 11-21; Botany 11; two courses in freshman mathematics; six additional courses, including Chemistry 43, Zoology 11, 41, at least one humanities elective; required hygiene and physical education.

Bachelor of Science in Business Administration
(See also pages 58, 59, 64.)

English 1, 2, 21; Modern Civilization 1, 2; Political Science 41; foreign language 3, 4, and either 21 or one approved humanities elective (or foreign language 1, 2, 3, 4); three courses in natural science or sophomore mathematics, at least one a biological science and at least one a physical science; two courses in freshman mathematics (6, 7, or 6, 31, or 15, 31, or 15, 7); six additional courses to include Economics 31, 32, Business Administration 71-72; required hygiene and physical education.

Bachelor of Science in Business Administration and Law
(See also catalogue of School of Business Administration.)

Same General College requirements as for Bachelor of Science in Business Administration (above).

Bachelor of Science in Chemistry
(See also page 130.)

English 1, 2, 21; Modern Civilization 1, 2; German 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-21, 43 (or Chemistry 11-12, 21, 43); two courses in freshman mathematics (6 or 15, and 31); Chemistry 51, Physics 24, 25 (or Physics 34, 35), Mathematics 32, 33; required hygiene and physical education.

Bachelor of Science in Dentistry
(For complete program see page 56.)

Bachelor of Science in Geology
(See also page 172.)

English 1, 2, 21; Modern Civilization 1, 2, one other social science; modern foreign language 3, 4, 21 (or 1, 2, 3, 4); Geology 11, 42, 101, 110, 111; Chemistry 11-21; two courses in freshman mathematics; one humanities elective; required hygiene and physical education.

Bachelor of Science in Health Education
(See also page 69.)

English 1, 2, 21; Modern Civilization 1, 2; Political Science 41; modern foreign language 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-21 and Botany 11 or Physics 20; two courses in freshman mathematics; five additional courses including at least one humanities elective, Anthropology 41 or Education 41, and Psychology 26 or Sociology 52 or 62; required hygiene and physical education.

Bachelor of Science in Industrial Relations
(For complete program see page 54.)

Bachelor of Science in Mathematics
(See also page 196.)

English 1, 2, 21; Modern Civilization 1, 2, one other social science; French or German 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-12 (or 11-21) or Physics 24, 25 or 34, 35; two courses in freshman mathematics, preferably Mathematics 15-31 or 6-31; five additional courses including Mathematics 32, 33, and at least one humanities elective; required hygiene and physical education.

Bachelor of Science in Medical Technology
(For complete program see page 56.)

Bachelor of Science in Medicine
(For complete program see page 56.)

Bachelor of Science in Pharmacy
(See also page 95.)

English 1, 2; Modern Civilization 1, 2; foreign language 3, 4; Chemistry 11-21; two courses in freshman mathematics; physical education, but not hygiene, required.

Note that the second year of this curriculum is taken after admission to the School of Pharmacy. The second year requirements include English 21, Economics 30, Botany 11, Physics 24, Zoology 11, and five pharmacy courses as well as the required physical education.

Bachelor of Science in Physical Therapy

(See also catalogue of the School of Medicine.)

English 1, 2, 21; Modern Civilization 1, 2; foreign language 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-12 or 11-21; Zoology 11, 41; two courses in freshman mathematics; Physics 24, 25; Psychology 26; required physical education; and one to three additional courses (Psychology 28 or 27 recommended).

Bachelor of Science in Physics

(See also page 223.)

English 1, 2, 21; Modern Civilization 1, 2, one other social science; French, German, or Russian 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-21 or 11-12; Physics 24, 25 or 34, 35; two courses in freshman mathematics, preferably Mathematics 15-31 or 6-31; at least four additional courses including Mathematics 32, 33 and at least one humanities elective; required hygiene and physical education.

Bachelor of Science in Public Health

(See also catalogue of the School of Public Health.)

Same General College requirements as for the Bachelor of Science in Health Education (above).

Bachelor of Science in Public Health Nursing

(See catalogue of the School of Public Health.)

Bachelor of Science in Science Teaching

(See also page 71.)

English 1, 2, 21; Modern Civilization 1, 2, one other social science; foreign language 3, 4, 21 (or 1, 2, 3, 4); at least four natural science courses, including Chemistry 11-21 or 11-12 and at least one biological science; two courses in freshman mathematics; four to five additional courses, including any specified for the major in General Science, Biology, Chemistry, or Physics; required hygiene and physical education.

Note that requirements may differ for major in General Science, in Biology, in Chemistry, or in Physics.

SOPHOMORE ELECTIVES

Underlined courses may not be taken for credit by students registered in the College of Arts and Sciences.

DIVISION OF THE HUMANITIES[2]

Art	31, 32, 33, 44, 45, 46
Classics:	Greek 1-2, 3, 4, 21, 22
	Latin 1-2, 3, 4, 21, 22, 51, 52, 53
	Classics 31, 32 (courses in English translation)
Dramatic Art	30, 31
English	22, 23, 26
[3]German	1-2, 3, 4, 21, 22, 31, 32
History	21, 22, 41, 42, 44, 45, 46, 47, 48, 49
Journalism	53
Music	14-15, 31-32, 41, 44-45, 55, 56
Philosophy	21, 22, 41, 42
Radio	45
Religion	28, 30, 32, 45
[3]Romance Languages:	French 1-2, 3, 4, 14, 15, 21, 22, 50, 51, 52
	Spanish 1-2, 3, 4, 14, 15, 21, 22, 50, 51, 52
Russian	1-2, 3, 4

DIVISION OF THE NATURAL SCIENCES

Astronomy	31, 32
Botany	11, 44
Chemistry	11-12 or 11-21, 43, 44, 51
Geography	38, 48
Geology	11, 42
Mathematics	31, 32, 33, 41, 51, 62
Philosophy	21, 22, 41, 42
Physics	20, 24, 25
Psychology	26, 27, 28
Zoology	11, 41

DIVISION OF THE SOCIAL SCIENCES

Anthropology	41
Economics	30, 31, 32
Education	41
History	21, 22, 41, 42, 44, 45, 46, 47, 48, 49
Philosophy	21, 22, 41, 42
[4]Physical Education	77
Political Science	41, 42, 51, 52
Sociology	51, 52

2. The School of Business Administration recommends the following electives in the humanities for those who wish a substitute for language 21: Art 31, 32, 33; Classics 31, 32; English 22, 23, 26; Music 41, 55, 56; Philosophy 21, 22, 41, 42; Religion 28, 30, 45.

3. Language 21 may count as an elective only when General College language requirements are met by courses 1-2, 3, 4 in that language.

4. After 1958-59, Physical Education 77 may not be taken as a sophomore elective for credit toward degrees in the College of Arts and Sciences (except for the degree with major in Physical Education).

THE COLLEGE OF ARTS AND SCIENCES

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean*
FRANK MARION DUFFEY, Ph.D., *Associate Dean*
DAVID GIOVANNI BASILE, M.A., GORDON BAYLOR CLEVELAND, Ph.D., CHARLES ERNEST EDGE, Ph.D., ROBERT MOATS MILLER, Ph.D., *Advisers*

The College of Arts and Sciences offers work on the junior-senior level for completing programs of study leading to the Bachelor of Arts degree and to more specialized Bachelor of Science degrees in natural sciences and in mathematics. Additional special curricula lead to professional study in law, dentistry, medicine, and medical technology; the degree of Bachelor of Science in Industrial Relations; and the degree of Bachelor of Arts with a major in International Studies.

ADMISSION AND CHOICE OF MAJOR

Students enter the College by transfer from the General College or by admission to advanced standing in the University. (See "Regulations" and "Admissions," Part II.) In either case, an acceptable pattern of courses must be met. A student transferring from another institution not offering some courses of a particular pattern must include these courses in his junior-senior program. The half-credit rule for freshman courses taken during the junior year and for sophomore courses taken during the senior year does not apply to the removal of such deficiencies by transfer students who register for the needed courses as soon as possible.

In the choice of a major field or special program, the student entering the College will have the assistance of one of the advisers in the Dean's office. If one of the regular degree programs is selected, advisers in the department of the major subject will assist in the selection of courses. Final responsibility for the acceptability of the selection and for full compliance with all officially published regulations and requirements of the College rests with the individual student.

Choice of a major subject for one of the regular degree programs automatically places the student in one of the three divisions of the College: the Humanities, the Social Sciences, or the Natural Sciences. Departments in the same division as the department of the student's major are "allied"; those in either of the other divisions are "nondivisional." Some departments' courses carry major credit in more than one division, and a limited number of courses offered in some of the professional schools are accepted for degree programs in the College of Arts and Sciences. The divisional classification of departments, special curricula, and allied courses in professional schools follows.

THE DIVISION OF THE HUMANITIES

C. Hugh Holman, Ph.D., *Chairman*
Charles Henderson, Jr., Ph.D., *Secretary*

Departments: Art, Classics, Dramatic Art, English, Germanic Languages, History, Music, Philosophy, Radio, Religion, Romance Languages.
Special Curriculum: Comparative Literature.
Allied Courses in Schools: Journalism 53, 56, 58, 60, 73.

THE DIVISION OF THE SOCIAL SCIENCES

Frederic N. Cleaveland, Ph.D., *Chairman*
Donald G. Tarbet, Ph.D., *Secretary*

Departments: Economics, Geology and Geography (Geography courses only), History, Philosophy, Physical Education, Political Science, Psychology, Sociology and Anthropology.
Special Curricula: Industrial Relations, International Studies.
Allied Courses in Schools: Business Administration 153, 160, 190 (and 71 unless Economics 74 has been taken). Other business administration courses may be counted for degree credit only by students majoring in economics, psychology, and industrial relations. Education 41, 71 (and others which may be taken only by some industrial relations majors). Journalism 54, 146, 161, 165, 184, 191. Library Science 122, 123, 151, 152.

THE DIVISION OF THE NATURAL SCIENCES

Wayne A. Bowers, Ph.D., *Chairman*
Walter Hall Wheeler, Ph.D., *Secretary*

Departments: Botany, Chemistry, Geology and Geography, Mathematics, Philosophy, Physics, Psychology, Zoology.
Special Curricula: Bachelor of Science programs in Dentistry, Medicine, and Medical Technology.
Allied Courses in Schools: Listed in Part IV under certain departments in the Division of Health Affairs.

REQUIREMENTS FOR DEGREES

Candidates for all degrees must establish eligibility as defined under "Regulations" in Part II. They must have grade of *C* or better on at least 18 hours in the major subject at the upper-college level and must pass all courses in the pattern of requirements for the degree.

Bachelor of Arts

1. A minimum of 126 semester hours credit, including hygiene and physical education.

2. A minimum of forty full courses or equivalent. (Hygiene and physical education are not full courses.) At least 20 full courses above

General College requirements must be taken by students in the divisions of the Humanities and the Social Sciences. (Exceptions may be made in certain programs.) In the Division of the Natural Sciences candidates for A.B. degrees must take a minimum of 18 full courses, subject to adjustment by the Dean of the College in individual cases. Students enrolled in the Air Force ROTC or in the Naval ROTC will be required to carry, respectively, four and six semester hours more than minimum graduation requirements. (For information concerning academic credit for military science courses, see "Air Science" and "Naval Science" in Part IV.)

3. The freshman-sophomore pattern of courses required by the General College, plus a junior-senior distribution of 6 to 8 full courses in the major department, 5 to 8 courses in allied departments, and 5 to 8 courses in nondivisional departments. Courses in departments listed in more than one division (Geology and Geography, History, Philosophy, Psychology) may not be counted as both allied and nondivisional in the same program. Courses crosslisted with the major may not count as electives.

4. A satisfactory major as prescribed in headnotes to department descriptions of courses in Part IV. A student must earn 18 hours of *C* or better (not a *C* average) in the major. A student who transfers major credits must earn, in University residence, grade of *C* or better on major courses representing semester hours in the same ratio as 18 is to the total number of upper-college hours required in the major. Transfer credits with grade lower than *C* may not be counted in the major. Transfer students must take at least half their major requirements in University residence.

With the approval of the Advisory Board of the appropriate division and the Administrative Board of the College, a program at variance from the regular divisional arrangement may be undertaken.

A student may earn the A.B. degree with a double major by taking at least three courses more than the minimum required for the usual A.B. and by meeting all major requirements in the two disciplines selected.

Bachelor of Arts with a Major in International Studies

PURPOSE: The College of Arts and Sciences, through interdepartmental cooperation, offers a Bachelor of Arts degree with a major in International Studies. The Curriculum in International Studies is designed to serve two purposes: (1) to provide a broad, general understanding of the basic fields related to international studies, and (2) to provide a preparation for students who wish to enter a career in international relations in government service, business, international agencies, or teaching.

General College: Twenty full semester courses are required, among which the following are recommended: Anthropology 41, Economics 31-32, Geography 38 or 48, History 21-22, or 44-45 or 48-49, and Political Science 41.

Third and Fourth Years: A minimum total of twenty full semester courses (60 semester hours) must be selected in accordance with the following distribution:

Core Requirements (seven courses): One language course from French 51, German 31, Spanish 51, or the equivalent in another modern foreign language[1]; six courses in at least five different subject fields from: Anthropology 95, 120, 121, 128; Economics 111, 161; Geography 152; History 114, 136, 143; Journalism 146; Political Science 86, 145.

Concentration Requirements:

Geographic—From *one* of the three geographic groups, at least six courses with *C* or better distributed among three or more subject fields:

	Asia	Latin America	Europe
Anthropology	120, 131, 137, 149	127, 132	136, 195
Economics	163, 195	163, 195	158, 175
Geography	181, 182	159, 160	
History	67, 68, 83, 84, 85, 159, 182, 183	171, 172, 173, 174	133, 134, 135, 136 140, 182, 183
Political Science	55, 88, 124, 148	87, 88, 127, 147, 167	52, 55, 88, 121, 123, 125

Major subject field—From *one* of the five subject field groups listed below, at least five courses with *C* or better (not counting any taken in the basic core): Anthropology 120, 121, 123, 126, 127, 128, 129, 130, 131, 132, 137, 149; Economics 70 and 81 (or 131 or 185) and three from 91, 111, 136, 161, 163, 195; Geography 153, 157, 158, 159, 160, 175, 181, 182; History 68, 84, 85, 114, 135, 136, 140, 143, 159, 171, 172, 173, 174, 181, 182, 183; Political Science 52, 55, 87, 88, 121, 123, 124, 125, 127, 141, 144, 146, 147, 148, 149.

Electives: Seven or eight electives (to make a total of 40 courses), including at least five upper-college courses from outside the Division of Social Sciences.

Bachelor of Science

Four-year programs leading to the degree of Bachelor of Science provide for specialization in a particular science, necessary instruction in related fields of science, and a minimal requirement of work in English, foreign language, and other nonscientific fields.

1. After July 1, 1963, a candidate for entry into the Foreign Service Officers Corps will be required to pass both the oral and written examination in French.

This degree is awarded in five fields: Bacteriology, Chemistry, Geology, Mathematics, and Physics. Junior-senior requirements for each degree are stated in the headnote to the course descriptions of the respective department in Part IV.

Bachelor of Science in Industrial Relations

GENERAL COLLEGE: English 1, 2, 21; Modern Civilization 1, 2, Political Science 41; modern foreign language 3, 4, 21 (or 1, 2, 3, 4); Psychology 26, one other biological and one physical science; two courses in freshman mathematics; six additional courses, including Economics 31-32 (with grade of *C* or better), Sociology 51; required hygiene and physical education.

CORE REQUIREMENT: Business Administration 71 (or Economics 74), 150 and one additional economics or business administration course; Economics 191, 192 (or 193); Psychology 133; History 168 (or Economics 135); one statistics course in economics, psychology, or sociology.

MAJOR REQUIREMENT: Five courses selected with advice and approval of the College adviser, from one of the following fields: education, history, political science, psychology, sociology. Courses in the major must be passed with grade of *C* or better.

ELECTIVES: Seven courses in the natural sciences and the humanities. (History courses may not be elected if the major is in history.)

DEGREES WITH HONORS

Programs providing an opportunity for honors study for qualified students are offered in all three divisions of the College. These programs are supervised by the individual departments and, though not completely uniform in the various disciplines, all have these general procedures and requirements:

1. Application for honors work: Students may be admitted to departmental honors programs on application to the departmental honors adviser in their major. Application should be made at the end of the sophomore year or as early as possible during the junior year, though exceptional cases may be approved at the beginning of the senior year. Detailed information concerning application should be obtained from the departmental honors adviser.

2. Requirements for eligibility: In general, an over-all grade average of *B* is required for admission to honors work, though exceptions may be made by the departments in unusual circumstances. In all cases, however, students admitted to honors programs must have demonstrated the ability to do distinguished work in the major field of study.

3. Nature and purpose of honors study: These programs are provided for students whose work in the University has demonstrated a very high level of scholastic ability and achievement and who desire to pursue an intensive, individualized program of study in their major discipline. The honors student is usually exempt from one or more of the regular major courses, may participate in seminars, and will be expected to undertake special reading programs and independent research. This independent research and reading will be directed toward the preparation of an honors essay or some other individual project. In every instance, study for honors will require academic excellence. A written comprehensive examination or an oral examination, or both, are required during the second semester of the senior year. When the student has fulfilled all of these requirements, the department will recommend to the Dean of the College of Arts and Sciences that the degree be designated "with honors," or "with highest honors." A minimum over-all average of *B* is ordinarily required for the honors degree, and the degree with highest honors is conferred in recognition of extraordinary achievement in the work of the honors program and predominantly excellent course grades in the major.

4. Honors in Writing: The departments of Dramatic Art, English, and Radio, Television, and Motion Pictures have programs leading to a degree with honors in writing.

5. Undergraduate Honors and Master's Degree Program: See Graduate School, Part III.

SPECIAL PRE-PROFESSIONAL PROGRAMS

Students preparing for the study of law, medicine, or dentistry should consider carefully the admission policies stated in the current special catalogue of the chosen professional school.

Three types of such preparation are available in the General College and the College of Arts and Sciences: (1) regular four-year program leading to a bachelor's degree; (2) three-year non-degree program planned to meet the admission requirements of a particular school; (3) special three-year program with bachelor's degree awarded after first year of professional study.

Only students who expect to complete at least their third year of academic work (10 courses or equivalent) and their first year of professional study at the University are eligible for the special three-year programs outlined below. Each student selecting one of these programs must assume individual responsibility for securing admission to the School of Law, the School of Medicine, or the School of Dentistry. Satisfactory completion of the stated quantity of academic work does not assure admission to the professional school, and the unsuccessful applicant will have no opportunity to complete the first year of professional study needed to meet a basic requirement of the bachelor's

degree. (Academic credits earned are, of course, transferable to any alternate degree program or to another institution.)

Bachelor of Arts and Laws

GENERAL COLLEGE: English 1, 2, 21; Modern Civilization 1, 2, Political Science 41; foreign language 3, 4, 21 (or 1, 2, 3, 4); Psychology 26 and two other courses in natural science, at least one of them in a physical science or sophomore mathematics; two courses in freshman mathematics or in Greek or Latin; six additional courses, including Economics 31-32, English 22 or 23 or 26 (or a music or art or religion elective), and one humanities elective; required hygiene and physical education.

THIRD YEAR: History 71, 72 (or 44, 45); Speech 44; English 30 or some other English course; seven additional courses, including at least one in political science.

Bachelor of Science in Medicine or in Dentistry

GENERAL COLLEGE: English 1, 2, 21; Modern Civilization 1, 2; foreign language 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-21 (or 11-12, 21), Botany 11; two courses in freshman mathematics; seven additional courses, including Chemistry 43, Physics 24-25 (or Zoology 11 and 41 or 103), English 22 or 23 or 26 (or a music or art or religion elective), foreign language 22 (or humanities elective); required hygiene and physical education.

THIRD YEAR: Chemistry 61, 64 (or 61, 62), Psychology 26, Zoology 11 and 41 or 103 (or Physics 24-25); four electives.

Bachelor of Science in Medical Technology

The School of Medicine offers jointly with the College of Arts and Sciences two programs leading to the Bachelor of Science in Medical Technology.

The first of these programs consists of a four-year collegiate curriculum *followed by a year of practical experience and training in a hospital to qualify the student for an examination offered by the Registry of Medical Technologists of the American Society of Clinical Pathologists.* Although the fourth year must be taken in the College of Arts and Sciences, the additional year of medical training does not necessarily have to be taken at the Memorial Hospital of the University of North Carolina, and the successful completion of the collegiate portion of the program does not guarantee admission to training in the hospital.

At least eighteen semester hours of grade *C* or higher are required from the following: chemistry courses numbered above 31, zoology courses numbered above 42, bacteriology and pathology courses.

In the second of these programs the student takes a prescribed curriculum for two years in the General College (or its equivalent elsewhere) and one year in the College of Arts and Sciences of the University. *The fourth year consists of a twelve-month course in medical technology in the School of Medicine; both the third and fourth years must be taken in the University.* Women are eligible to enter this program as freshmen. The completion of the first three years of this program does not necessarily mean admission to the twelve-month course in medical technology in the School of Medicine. Only the most promising applicants can be chosen to fill the limited number of vacancies in the medical technology course. The schedules of academic work for both programs follow:

General College: English 1, 2, 21; Modern Civilization 1, 2, one other social science; foreign language 3, 4, 21 (or 1, 2, 3, 4); Chemistry 11-21, 43; two courses in freshman mathematics; Zoology 11, 41 and two humanities electives; required hygiene and physical education.

Additional Courses for Three-Year Program: Chemistry 61, 64; Bacteriology[2] 51 or 55 or 132; two courses from Bacteriology 104, 106, 112, 120, 101ab, Zoology 103, 104, 105, 110, 111, Biochemistry 101ab, Chemistry 44, Public Health 134, Botany 11; four additional courses, including three nonscience electives.

Four-Year Academic Program: General College requirements and additional courses listed above; Physics 24-25; nonscience courses representing 6 semester hours; unrestricted electives representing 15 semester hours. Students in both three year and four year programs must take a minimum of 16 semester hours in the biological sciences.

2. For students majoring in medical technology, Bacteriology 51 or 55 is acceptable as prerequisite for Bacteriology 104, 106, 112, 120.

THE SCHOOL OF BUSINESS ADMINISTRATION

MAURICE WENTWORTH LEE, Ph.D., *Dean*
CLAUDE SWANSON GEORGE, JR., Ph.D., *Assistant Dean*
ROY WALTER HOLSTEN, A.B., *Assistant to the Dean*
PAUL NEWMAN GUTHRIE, Ph.D., *Chairman of the Department of Economics*
RALPH WILLIAM PFOUTS, Ph.D., *Chairman of Graduate Studies in the School of Business Administration and the Department of Economics*
GERALD ALAN BARRETT, A.B., LL.B., *Director of the M.B.A. Program*

General Statement

Although courses of instruction in economics and in certain business subjects had been offered for many years in the University of North Carolina, not until 1919 was there established a comprehensive, well-organized business curriculum. In that year the General Assembly, in conformity with the recommendation of the President and the Board of Trustees, enacted the legislation which resulted in the organization of the School of Commerce. The name of the School was changed in 1950 to the School of Business Administration. The School occupies a place in the University organization coordinate with other professional schools and the College of Arts and Sciences.

In 1923 the School was admitted to membership in the American Association of Collegiate Schools of Business, an organization dedicated to the promotion of high standards in professional education for business. Membership is based on the number and caliber of the faculty; the thoroughness of the academic program offered; the content and breadth of the curriculum, both in general education and in business; the financial support of the school; and the physical facilities provided for carrying on the work. The undergraduate course of study, leading to the degree of Bachelor of Science in Business Administration, covers a period of four years, except in accounting which is a four and one-half year program, and is designed to give a foundation of general education in the natural sciences, the humanities, and the social sciences, as well as to supply a professional background to those who intend to engage in business administration.

For those desiring work at a more advanced level in business administration, the degrees of Master of Business Administration, Master of Science, and Doctor of Philosophy are offered through the Graduate School.

Purpose and Policy

The phenomenal industrial development of the South in recent years has produced an imperative need for trained businessmen. The School of Business Administration, in a large sense, is the expression of the University's desire to serve this need. Substantial support has been accorded the School by both the University and the state as a

whole. The School has been provided with a well-qualified instructional staff. The School is housed in a quadrangle of three modern buildings offering outstanding classroom and laboratory facilities.

The teaching policy of the School assumes that effective education for business responsibility should consist not only of development of understanding of the principles and methodology which govern the organization and administration of individual business enterprises, but also of an understanding of the problems and the larger relationships of the economy as a whole. In his attempt to master the more specialized aspects of business, the student is not permitted to lose sight of social and other cultural values. Instead, the curriculum in business administration is founded upon the realization that an effective career of business leadership must be based upon a broad cultural foundation. The exacting demands which face the modern business executive require that he possess more than a high degree of professional competence in technical and specialized aspects of business administration. He must also have a broad grasp of general business fundamentals and must have a full awareness of the economic, social and human forces which form the background against which his business career will be pursued. In short, the effective business executive must, first of all, be a responsible, informed, and perceptive citizen.

For these reasons, the various programs in business administration have been carefully formulated to maintain a balance between the equally important needs of general education and of professional education for business responsibility. Whenever possible, therefore, the plan is followed of presenting the subject matter of the various courses from the point of view of the administrator, always bearing in mind that his field of interest includes the broad external relationships as well as the internal administration of his business. Adherence to this point of view enables the student to consider the problems and practices of business in a broad perspective.

Programs leading to the degree of Bachelor of Science in Business Administration are carefully coordinated with the required two-year program of the General College, described on page 46. The undergraduate programs in business administration place further emphasis upon intellectual breadth by requiring that each student take a core of seven courses in fundamental business subjects, supplemented by appropriate elective courses in areas other than business administration and economics.

The core courses which are required of all candidates for the Bachelor of Science degree in Business Administration are:

Economics 70	Elementary Statistics
Economics 81	Money and Banking
Business Administration 91	Business Law
Business Administration 130	Principles of Industrial Management
Business Administration 150	Personnel Relations
Business Administration 160	Principles of Marketing
Business Administration 180	Business Finance

These core courses, plus the required program in the General College during the freshman and sophomore years, described on page 46, form the background for more intensive concentration in one of the majors in business administration. These majors include Accounting, Banking and Finance, General Business Administration, Industrial Management, Insurance, Marketing, Personnel, Statistics, and Transportation and Traffic. A special major is also available combining Business Administration with Law. Students wishing to take their electives in Radio, Television, and Motion Pictures in conjunction with the above majors should see the chairman of that department to select appropriate courses. Specific details of requirements for each of these majors are presented in the catalogue of the School of Business Administration. In every case, in addition to advanced courses in his major and electives in business administration or economics, a student will be required to select certain free elective courses chosen from areas outside the School and designed to give educational breadth.

Department of Economics

The Department of Economics is administratively and educationally a part of the School of Business Administration and provides instruction as an integral part of the program of the School.

In addition, the Department offers undergraduate and graduate programs in economics in the College of Arts and Sciences and in the Graduate School, leading to the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy, for those students desiring to specialize in economics.

Reserve Officers Training Corps Program

Regularly organized units of the Air Force ROTC and Naval ROTC are maintained at the University. With careful planning, it is possible for a student to complete successfully the requirements of either of these programs coincident with an undergraduate curriculum in business administration in four academic years, except in accounting. ROTC students majoring in accounting will be able to make arrangements on an individual basis with their unit for deferred

graduation if graduation requirements cannot be met within four years. More complete information is available in the catalogue of the School of Business Administration.

Special Students

Frequently persons already engaged in business careers feel the need of additional special training but are unable to spend a relatively long period at the University or cannot provide proper credits for admission as regular students. The School of Business Administration will admit as special students certain applicants who are twenty-one years of age or over. Such an applicant should submit a statement from his employer or former employers concerning the term, nature, and quality of his work. A self-employed person should submit a resume of his business experience. A personal interview with the Dean or Assistant Dean is also recommended. Veterans who apply for admission as special students and who wish to qualify for assistance under one of the governmental educational programs must receive the specific approval of the Veterans' Administration.

All special students are admitted on probation and are not candidates for degrees.

Graduate Study

Professional education in business administration at the graduate level is offered for college graduates with undergraduate majors in business administration as well as for students who have been awarded undergraduate degrees in other fields. A student's initiative and analytical and creative powers are matured and tested to a degree impossible of attainment in the undergraduate years. Certain courses have been developed exclusively for graduate students; some, designed primarily for the encouragement and guidance of research activity, are conducted informally and on a basis of close personal contact between professor and student.

The School of Business Administration offers through the Graduate School the graduate degrees of Master of Business Administration, Master of Science, and Doctor of Philosophy. The Department of Economics offers through the Graduate School the programs leading to the degrees of Master of Arts and Doctor of Philosophy with a major in economics.

Graduates of other institutions desiring to enter as candidates for advanced degrees should submit their records, together with application for admission, to the Dean of the Graduate School. For further details, see the catalogue of the Graduate School.

The Bureau of Business Services and Research

REX SHELTON WINSLOW, Ph.D., *Director*

The Bureau of Business Services and Research is an agency of the School which cooperates with The Executive Program, the University Extension Division, private business firms, foundations, and trade associations in organizing and extending the services and facilities of the School of Business Administration to the business community of North Carolina.

The Bureau designs and administers adult education programs for business executives both on and off the campus. It acts as a consultant to business firms and associations seeking to establish research programs of their own. It directs the work of Management Development, Inc., a private corporation established by the alumni of The Executive Program to continue their own development through holding Management Institutes in their home communities.

The Bureau participates and assists in forwarding the research objectives of the School and University and publishes from time to time the results of research investigation.

The Executive Program

WILLARD J. GRAHAM, Ph.D., C.P.A., LL.D., *Director*

In the fall of 1953, the University established a new program of advanced study in business administration for men in management—The Executive Program. This program is designed for persons already carrying major executive responsibility. All areas are presented from the top management point of view to increase general effectiveness of executive performance. The over-all objective is the development of broad-gauge senior management personnel.

The program is not a series of self-contained units; instead, attention is devoted to cases and problems which involve several areas. The emphasis is upon (a) the development of an understanding of the problems of *all* divisions of the business, and (b) an approach to the solution of these problems from the top management point of view.

The program consists of a combination of nine alternate "week ends" and two one-week periods of full-time residence. Each applicant for admission should be nominated by his employer and sponsored by him. Admission is highly selective; successful business experience weighs heavily in the selection.

The Southern Economic Journal

JAMES CARLTON INGRAM, Ph.D., *Managing Editor*

The Southern Economic Journal, established in 1933, has been published jointly by the Southern Economic Association and the Uni-

versity of North Carolina since 1936. It is a quarterly publication designed primarily to promote research in southern economic problems as well as to provide a medium for publishing the creative work of southern and other economists. It is now recognized as one of the distinguished American journals in its field and has both a national and international circulation.

Library Facilities

The School of Business Administration is represented in the University Library system by its own Business Administration and Social Sciences Division, housed in the east wing of the Louis Round Wilson Library building. The commodious reading room of this Division has in it about 15,000 reference, and two-week books, selected for the use of its students and faculty. This is just a representative group drawn from the main library holdings of over a million volumes.

The Business Administration and Social Sciences Library has about 800 current periodicals and 100 newspapers, and is the center for the extensive collection of federal, state, United Nations, and UNESCO documents which the library houses. It subscribes to the major reference tools in the field and also maintains loose-leaf services published by the Bureau of National Affairs, the Commerce Clearing House, Fitch, Moody, and Standard and Poor. A large collection of pamphlets, university publications, and ephemera is kept in the vertical file section.

A special librarian is in charge of the Division of Business Administration and Social Sciences. The staff is prepared to aid students in the collection of materials for research work. Through cooperative relationships with other libraries in the state and nation, this Division is able to assist in obtaining material which may not be currently available in the University. Special library privileges including access to the stack rooms and private carrels may be accorded graduate students.

Lectures, Observation Trips, and Clinics

Valuable supplementation to the regular curriculum is furnished by lectures by prominent businessmen and educators who are invited to the University for this purpose.

In addition to formal lectures, the School periodically arranges for business leaders to come to the University for informal discussion of current business problems in their respective fields to provide the student with a clearer understanding of actual business practice.

From time to time classes in business administration visit neighboring factories and other types of business firms to gain firsthand insight into business operations.

The Reynolds Student Investment Trust

In October 1952, Mr. Charles H. Babcock generously gave the University a sum of money to establish an investment trust to be managed by a Student Governing Board composed of selected students qualified to make sound investment decisions. In creating the trust, Mr. Babcock said, "It is hoped that the investment trust to be set up will serve as a useful teaching medium in Economics and Finance courses. It should bring additional realism and responsibility into the classroom, thereby being of practical benefit both to the student and the professor. The investment management problems presented should be a stimulus to investment thinking even though the student does not plan a career in banking or finance." One-half the income arising from the operation of the investment trust is to be donated to the Chapel Hill Community Chest and the other half added to the corpus of the fund.

Beta Gamma Sigma

Beta Gamma Sigma, recognized by the American Association of Collegiate Schools of Business as the national scholarship society in Commerce and Business, maintains a chapter, Alpha of North Carolina, at the University. Those students who rank scholastically in the highest 10 per cent of the senior class and the highest 3 per cent of the junior class may be considered for membership in this organization, although the number selected is generally less than indicated by the foregoing figures.

Admission

For requirements for admission to the School of Business Administration, see "Admission to Upper College or School," in Part II. For the curriculum offered in the first two years while the student is formally enrolled in the General College, see page 46.

Courses and Curricula Leading to the Degree of Bachelor of Science in Business Administration

A description of courses offered by the School of Business Administration is given in Part IV of this catalogue. A list of the core courses required of all degree candidates in Business Administration is shown on page 60. The several curricula which lead to the degree of Bachelor of Science in Business Administration are described in detail in a separate catalogue of the School of Business Administration, which may be obtained by addressing a request to the Dean.

THE SCHOOL OF EDUCATION

ARNOLD PERRY, Ed.D., *Dean*

General Statement

Undergraduate students who wish to prepare for teaching in the elementary school or in the secondary school will be admitted to the School of Education in accordance with the procedure stipulated in "Admissions to Upper College or School," in Part II.

Each student will select courses in his major field of concentration to meet the requirements for graduation from the University and will take courses in education to meet teacher certification requirements.

Curricula which meet the requirements of the State Board of Education for certificates to teach in the public schools of the various states are administered by the School of Education in cooperation with the academic departments of the University. Majors are offered and certificate requirements are met in art, elementary education, English, foreign language (French, German, Latin, Spanish), health education and physical education, science (general science, biology, chemistry, physics), and social studies (economics, history, political science, geography, and sociology). Students in the School of Education are encouraged to prepare for a second teaching field or to take courses which will enable them to direct extracurricular activities.

Accreditation

The School of Education is a member of the American Association of Colleges for Teacher Education and is accredited by the National Council for Accreditation of Teacher Education.

Degrees Offered

The following degrees are awarded to students completing undergraduate programs of study in the School of Education: Bachelor of Arts in Education (Secondary); Bachelor of Arts in Education (Elementary); Bachelor of Science in Science Teaching (Secondary); Bachelor of Science in Health Education. Freshman-sophomore requirements for these programs are stated under "The General College," in Part III.

GRADUATION REQUIREMENTS

In addition to the general University requirements for graduation stated in "Regulations," Part II of this Catalogue, a student who secures a degree in the School of Education must meet each of the following:

1. A minimum of 126 semester hours credit, including hygiene and physical education.
2. A minimum of forty courses, twenty of which should be of junior-senior standing.
3. The freshman-sophomore pattern of courses required by the General College and a distribution of courses in the junior and senior years that meets the requirements for the student's particular major pattern as described below.
4. A satisfactory teaching major in elementary education, in junior high school education, or in teaching one of the subject areas at the secondary school level.
5. A grade of *C* or better on the final 18 semester hours of professional course work in the School of Education and on at least 18 semester hours of work in the major teaching field.

PROFESSIONAL PROGRAM

The professional program designed to meet the certification requirements has been organized around three areas of study—*The School, The Pupil,* and *Teaching (The Practicum).* The content of the courses, which of necessity cuts across these areas, has been organized to eliminate unnecessary duplication. The materials used and the activities engaged in through these courses offer a variety of individual and collective experiences. Schools are visited, classrooms are used for observation of student growth, teachers are interviewed for professional development, and community activities are observed.

The following professional courses are listed in the catalogue for credit toward graduation:

Elementary Students:

Ed. 41. INTRODUCTION TO THE STUDY OF EDUCATION (3). *(The School).*

Ed. 71. EDUCATIONAL PSYCHOLOGY (3). *(The Pupil).*

Ed. 72a. CHILD GROWTH AND DEVELOPMENT (3). *(The Pupil).*

Ed. 74. THE ELEMENTARY SCHOOL (3). *(The School).*

Ed. 61. MATERIALS AND METHODS IN TEACHING IN ELEMENTARY GRADES (3). *(Teaching).*

Ed. 62. STUDENT TEACHING IN ELEMENTARY GRADES (9). *(The Pupil, Teaching,* and *The School).*

Secondary Students:

Ed. 41. INTRODUCTION TO THE STUDY OF EDUCATION (3). *(The School).*

Ed. 71. EDUCATIONAL PSYCHOLOGY (3). *(The Pupil).*

Ed. 72b. ADOLESCENT GROWTH AND DEVELOPMENT (3). *(The Pupil).*

Ed. 99. THE SECONDARY SCHOOL (3). *(The School).*

One course from METHODS AND MATERIALS OF TEACHING IN: Ed. 63, Health and Physical Education; Ed. 75, Instrumental Music; Ed. 76, Choral Music;

Ed. 77, Art; Ed. 81, English; Ed. 83f, French; Ed. 83g, German; Ed. 83s, Spanish; Ed. 85, Social Studies; Ed. 87, Latin; Ed. 89, Mathematics; Ed. 91, Science; Ed. 93, Public Health Education (3). *(Teaching).*

One course from STUDENT TEACHING: Ed. 64, Health and Physical Education; Ed. 78, Instrumental Music; Ed. 79, Choral Music; Ed. 80, Art; Ed. 82, English; Ed. 84f, French; Ed. 84g, German; Ed. 84s, Spanish; Ed. 86, Social Studies; Ed. 88, Latin; Ed. 90, Mathematics; Ed. 92, Science; Ed. 94, Public Health Education (9). *(The School, The Pupil,* and *Teaching).*

Program for Students Planning to Teach in Junior High Schools

Students who wish to prepare themselves specifically for teaching at the junior high school level may meet the necessary certification requirements for the state of North Carolina and the graduation requirements at the University of North Carolina after completing a program outlined by one of the advisers in the School of Education. This program provides for the use of elective courses in such a way as to meet the broad demands of teaching in several content fields. This program varies from that offered to students wishing to specialize more narrowly at the senior high school level largely in the more varied subject preparation of the student and in the specific methods emphasis in the professional courses.

Program in Secondary Education

In addition to the professional courses from the field of education outlined above, all students in the program of secondary education will meet the requirements in the fields of their specialization by following the programs outlined below. Some students will find it possible by careful planning to qualify for certification to teach in more than one field. The requirements for each of the certificate areas recognized by the North Carolina State Department of Public Instruction are included below. Similar certification requirements exist in other states, but students planning to teach outside of North Carolina should consult with their advisers in the School of Education with regard to specific requirements.

ART

Students who choose art as either their first or second teaching field are required to have a minimum of thirty semester hours in art. These should be chosen from the following areas: Design, 9 semester hours; Drawing and Painting, 9 semester hours; Ceramics or Sculpture, 3 semester hours; Art History, 6 semester hours; Art elective, 3 semester hours.

Some of the above courses may be taken as sophomore electives.

Additional art courses may be taken through use of electives in the upper college.

BIBLE AND RELIGION

Students who choose Bible and religion as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-one semester hours of course work including: Old Testament and New Testament and choices from

Religion 28, 30, 31, 80, 81, 92, 103, 45 or 95.

Appropriate courses taken at the collegiate level in any accredited institution will count toward this certificate.

ENGLISH

Students who choose English as their major teaching field will take: (a) English 30, 36, 58, 81; (b) One of the following: English 43, 45, 51, 52, 54, 60, 63, 64, 66, 72, 73, 78; (c) Speech 40 or 41; (d) One elective in literature.

Students who choose English as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours. Required courses include work in Shakespeare, American Literature, and Advanced Grammar and Composition. Specifically recommended in addition is work in Speech, English or American Literature, Teaching Reading, and Young People's Literature. Appropriate courses taken at the collegiate level in any accredited institution will count toward the certificate.

FRENCH

Students who choose French as their major teaching field should take in addition to French 3-4 and 21 the following:

French 50, 51, 52, 71, 72, 126, 145.

Students who choose French as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of course work if they present two high school units of French. Six semester hours of spoken language must be included.

GERMAN

Students who choose German as a major teaching field should take, in addition to German 3-4 and 21, the following:

German 22, 31, 90, 145, and three appropriate German literature courses from the 100-level courses.

Students who choose German as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of course work if they present two high school units of German. Six semester hours of spoken language must be included.

HEALTH AND PHYSICAL EDUCATION

All students who choose health and physical education as a major teaching field are required to have at least six semester hours of biological science and the following physical education courses: 75, 76, 77, 78, 79, 86, 87, 88.

In addition: men will take Physical Education 65, 66, and 67; women will take Physical Education 55, 56, and 57.

Students who wish to qualify as part-time teachers of health and physical education and coaches of athletic teams will qualify for a North Carolina teaching certificate by taking fifteen semester hours of work in physical education, including: Principles, Administration and Supervision of Physical Education and Health, Physical Education skills and applied techniques, and Health Education, including the teaching of Health and School Health Problems.

HEALTH EDUCATION

Students who choose health education as a major teaching field should take:

Bacteriology 51 or 151; Education 176; Zoology 11; Physical Education 75 (or 76), or Zoology 103 and Physical Education 76, or Zoology 103 and Physical Education 123; Public Health 110ab; Public Health 18; Public Health 19; Public Health 90 (recommended elective).

General College electives should be chosen in consultation with an adviser in the Department of Health Education, School of Public Health.

LATIN

Students who choose Latin as their major teaching field should take Latin 21 plus a minimum of six other courses of higher level.

Students who choose Latin as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of work in Latin (based on two units of high school Latin to be reduced six semester hours for each additional high school unit of entrance credit).

LIBRARY SCIENCE

Students who choose library science as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of eighteen semester hours of work, including: Administration and Organization of the School Library, Reference Books and Their Use, Book Selection for Children, Book Selection for Young People, Classification and Cataloguing. These requirements may be met by taking:

Library Science 101, 111, 122, 123, 133, 143.

MATHEMATICS

Students who choose mathematics as their major teaching field should take the following courses or their equivalents:

Mathematics 6, 7, 31, 32, 33, 102 or 116, 103 or 119.

Two additional courses in mathematics to make a total of twenty-seven semester hours.

Students who choose mathematics as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-one semester hours of work, including: College Algebra, Trigonometry, Analytic Geometry. Other courses recommended in this total include: Differential and Integral Calculus; History of Mathematics; Mechanical Drawing; Surveying; Application of Mathematics to Science, Engineering, Commerce, and Industry; Statistics; College Physics; Navigation; and Astronomy. Appropriate courses taken at the collegiate level in any accredited institution will count toward this certificate.

MUSIC

Students who choose music as their major teaching field will take the following courses or their equivalents:

Music 11, 12, 14, 15, 31, 32, 44, 45, 47, 48, 61, 64, 71, 74, 101, and appropriate courses each year in applied and ensemble music.

Courses 11 through 48, or their equivalents, should be completed during the freshman and sophomore years; the remaining courses during the junior and senior years.

Students who choose music as a second teaching field may be certified in North Carolina by following the appropriate program below.

For the Certificate in General Music Education:

1. Applied Music
   a. piano, at least 3 semester hours
   b. voice, at least 3 semester hours (one-half or more in voice training)
2. Theory of Music (harmony, form, ear training), at least 6 semester hours
3. History and Appreciation of Music, at least 5 semester hours
4. Music electives, 6 semester hours

For the Certificate of Instrumental Music Education:

1. Applied Music
   a. major instrument, 4 semester hours
   b. at least 2 minor instruments

2. Theory of Music (harmony, form, ear training), at least 6 semester hours
3. History and Appreciation of Music, at least 6 semester hours
4. Music electives, 7 semester hours

NATURAL SCIENCE

Students who choose science as their major teaching field will, upon completion of the prescribed program be awarded the B.S. in Science Teaching degree. All science courses taken while the student is in General College may count toward the degree requirements. *Students who choose this program are encouraged to complete at least four (4) science courses while in the General College.*

Students who choose the B.S. in Science Teaching degree program select one science teaching field as a major and must complete one of the following major and allied course programs or their equivalents:

General Science. (This program is planned primarily for those who wish to teach science in the junior high school.)
Astronomy 31; Botany 11 and one elective in botany; Chemistry 11-12 or 21; Geography 38; Geology 1 or 41, 42; Physics 24-25; Zoology 11 and one elective in zoology; and one science elective.

Biology. Major Courses: Bacteriology 51 or 151; Botany 11 and two electives in botany; Zoology 11 and two electives in zoology.
Allied Courses: Chemistry 11-21, 61; Geology 1 or 41; and Physics 24-25.

Chemistry. Major Courses: Chemistry 11, 21, 43, 51, 61, and two electives in chemistry.
Allied Courses: Astronomy 31; Botany 11; Geology 1 or 41; Zoology 11; and Physics 24-25.

Physics. Major Courses: Physics 24-25, 31, and three electives in physics.
Allied Courses: Botany 11; Chemistry 11-21; Geology 1 or 41; Zoology 11; and Mathematics 31, 32.

Any one of the above programs will meet the requirements for the Class A High School Teachers Certificate in North Carolina and nearly all other states.

Students who choose science as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours of course work including at least six semester hours each in biology, chemistry, and physics, and three semester hours in physical geography or geology. In North Carolina, individual certificates will be granted in biology, chemistry, or physics on the basis of twelve semester hours of credit, and in the area of general science on the basis of eighteen semester hours of credit in three of the areas of biology, chemistry, physics, and physical geography or geology.

SOCIAL STUDIES

Students who choose social studies as their major teaching field must have the following courses or their equivalents: Modern Civilization 1-2, and History 21-22 or 71-72. In addition to these prerequisite courses, students must pursue one of the following plans.

Take the following courses or their equivalents: Political Science 41, Sociology 51 or 52, Economics 30 or 61; one course from the following: Geography 153, 154, 157, 158, 159 or 160; two three-hour courses in history of junior-senior rank; two three-hour elective courses from the Division of the Social Sciences or Geography.

Complete at least six courses in one of the following departments as prescribed by that department: Economics, History, Political Science, Sociology and Anthropology, or Geography, and complete two additional courses not in the field selected from the following: Political Science 41, Sociology 51, Economics 61, and Geography 153 (or equivalents of these courses).[1]

Students who choose social studies as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours of course work divided among the following areas: at least six semester hours in European or World History; at least six semester hours in American History; at least twelve semester hours from Political Science, Geography, Economics and Sociology; electives from these areas. Appropriate courses taken at the college level in an accredited institution may be counted toward this teaching field.

Students who meet certification requirements to teach in other fields may secure individual certification in any of the specific areas: History, Political Science, Geography, Economics, and Sociology, in which twelve semester hours of credit is presented. Certification for Citizenship or Problems in American Democracy requires credit for at least eighteen semester hours from Political Science, Economics, and Sociology.

SPANISH

Students who choose Spanish as their major teaching field should take in addition to Spanish 3-4 and 21 the following:

Spanish 50, 51, 52, 71, 72, 113, 145.

Students who choose Spanish as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of course work if they present two high school units of Spanish. Six semester hours of spoken language must be included.

1. Students who choose a program in history will find it necessary to complete this plan and two additional three-hour courses from Political Science, Geography, Economics, and Sociology in order to qualify for the North Carolina social studies certificate.

Distributive Education

For holders of the bachelor's degree the School of Education provides a program of courses to equip a person to serve as a teacher-coordinator of distributive education in secondary schools. At the present time courses in distributive education are offered in the summer only.

Graduate students desiring to work toward the degree of Master of Education with a major in distributive education should confer with their advisers. The State Department of Public Instruction requires certain work experience in a distributive occupation prior to certification and employment in North Carolina.

Students interested in teaching positions in this field should consult the Dean of the School of Education or the Teacher Trainer of Distributive Education in Peabody Hall.

Program in Elementary Education

The program of study leading to a major in elementary education and to certification as an elementary school teacher in North Carolina and other states may be arranged by the student in consultation with his adviser. Completion of General College requirements (freshman and sophomore years) is a prerequisite to enrollment in the School of Education and to admission to courses in education designed to develop in the student the competencies needed for effective guidance and teaching of young children.

Men students may enter the University as freshmen. Their General College program should include, where possible, two courses in American history, two courses in geography (principles and regional), an introductory course in political science, and a course in music appreciation or a course in art appreciation. These courses are usually worked into the program of the student in meeting General College requirements.

Women students may enter the University as juniors and go directly into the School of Education provided General College requirements have been met. Women who are planning to transfer to the University after two years at some other institution should plan their freshman and sophomore programs to meet General College requirements and to include the courses in history, geography, political science, art, and music mentioned above. Women admitted to the University with marked deficiencies in these courses and in General College requirements will find it necessary to take an extra term to meet graduation requirements and to complete courses needed for teacher certification in a particular state. The summer session before the junior and senior years as well as the summer following the senior year may be used for this purpose. Students who plan their program properly may transfer to the University after two years in

some other recognized institution and complete the work in the regular four semesters of two academic years.

Specific courses for the junior and senior years are selected in consultation with an adviser in elementary education. Not all students will have the same courses during the same semester. Variations will occur because of differences in freshman and sophomore programs and because of individual needs of students. All students, however, must meet graduation requirements of the University and must include all courses required by the state of North Carolina for certification as a Class A teacher in the primary or grammar grades.

Elementary certification requires the professional courses listed on pages 66-67, in addition to the following subject-matter credits. Many of these should be completed during the first and second years of the college program.

SUBJECT	SEMESTER HOURS
1. ENGLISH	
Courses required for degree plus Children's Literature. Electives recommended are Advanced Grammar and Speech.	
2. AMERICAN HISTORY AND GOVERNMENT	9
Required:	
a. American History	6 s.h.
b. Government	3 s.h.
3. GEOGRAPHY	6
Principles and Regional recommended.	
4. FINE AND INDUSTRIAL ARTS	12
Required:	
a. Art (including laboratory course)	6 s.h.
b. Music (including fundamentals for teachers)	6 s.h.
5. HEALTH AND PHYSICAL EDUCATION	6
Required:	
a. Principles, Practices, and Procedures in Physical Education for Elementary Schools	3 s.h.
b. Principles, Practices, and Procedures in Health for Elementary Schools	3 s.h.

Special Students

Holders of a bachelor's degree with a major in some subject which is taught in secondary schools may be admitted to the School of Education as special students to take courses leading to a teacher's certificate in North Carolina or other states. Persons planning to teach in the secondary schools who have had 30 semester hours credit in a teaching field and have completed as much as six semester hours of credit in professional education may complete certification requirements in one semester of full-time study and student teaching. Persons planning to teach in elementary schools are required to have course

credit in several fields and usually must take a year or more to complete requirements for certification.

Fifth Year Program in Teacher Education

In September 1959, the School of Education inaugurated a special program for liberal arts graduates desiring to become secondary school teachers. The program is operating on an experimental basis financed by a grant from the Fund for the Advancement of Education. The program is fifteen months in duration. Each entering class begins in June and runs continuously through August of the following year. Upon satisfactory completion of the program students will be awarded the Master of Education degree and will be eligible for a teacher's certificate in practically every state in the nation. For further information students should write directly to Dean Arnold Perry, Box 810, Chapel Hill, N. C.

Graduate Program

The School of Education offers in the Graduate School the Master of Arts and the Doctor of Philosophy degrees. It also offers in the Graduate School the professional graduate degrees, the Master of Education and the Doctor of Education. Requirements and programs for the above degrees are described in the Graduate School Catalogue and the School of Education Catalogue.

THE SCHOOL OF JOURNALISM

NORVAL NEIL LUXON, Ph.D., *Dean*

General Statement

The School of Journalism, founded as a department in 1924 and changed to School status in 1950, offers a two-year course leading to the A.B. in Journalism.

The School is accredited by the American Council on Education for Journalism which approved its News-Editorial sequence, the only curriculum offered.

Students who have completed two years of liberal arts courses are admitted provided they have met the requirements of the General College. Because of the nature of class and laboratory assignments, students should be able to type with reasonable skill, accuracy, and speed.

The School also offers a major in journalism, leading to the A.M. degree, in the Graduate School and a graduate minor for candidates for the A.M. and Ph.D. degrees in English, history, political science, psychology, and sociology. Graduate minors for students in other departments may be arranged after consultation with the department chairman and the Dean of the School of Journalism.

The academic program of the School of Journalism, including the two years of liberal arts required for admission, is designed to provide students with (1) a basic liberal education, (2) an understanding of the responsibilities of a free press in a democratic society, and (3) a fundamental knowledge of journalistic techniques.

Students are encouraged to acquire a background in the humanities, the social sciences, and the natural sciences while preparing for journalism careers. The program of the School prepares students for editorial and advertising positions on newspapers and magazines, for radio and television news writing posts, and for a variety of positions in the broad field of mass communications.

Candidates for the A.B. in Journalism are required to take eight courses in journalism, two in American or North Carolina history, Political Science 41, and additional social science courses as follows:

Two advanced courses in any one of four social science departments: economics, political science, psychology, or sociology. Prerequisites for these advanced courses are respectively: Economics 31-32 or 61, Political Science 41, Psychology 26, or Sociology 51. The prerequisite course or courses preferably should be taken in the General College because none except Economics 61 may be counted among the 20 junior and senior courses needed to meet graduation requirements.

Students planning to enter the School of Journalism are advised to meet the General College social science requirement by taking Modern Civilization 1 and 2, and Political Science 41. Psychology 26 meets the requirement for a biological laboratory science and students planning to major in journalism are urged to enroll in this course. Journalism staff members are available to advise pre-journalism students concerning elective courses in the General College. Students planning to transfer from other institutions are urged to note General College requirements and meet them in their institutions.

The School of Journalism Foundation of North Carolina, Inc., was established in 1949 to promote the advancement of professional education for journalism at the School of Journalism. Income from the Journalism Foundation endowment is expended for that purpose at the discretion of the Dean. Major expenditures have been for undergraduate scholarships, graduate assistantships, and subscriptions to newspapers and magazines.

Journalism and pre-journalism students interested in extracurricular activities in line with their academic program are encouraged by the School of Journalism to work on *The Daily Tar Heel,* student newspaper.

For further information see course listings on pages 189-91, and write to the Dean of the School of Journalism for the separate journalism bulletin.

THE SCHOOL OF LAW

HENRY PARKER BRANDIS, JR., A.B., LL.B. LL.D., *Dean*

General Statement

The School of Law, now in its one hundred and seventeenth year and with a regular faculty of sixteen plus seven lecturers, offers a three-year course leading toward the LL.B. degree. It is on the approved lists of the North Carolina Board of Law Examiners, the State Department of Education of the State of New York, and the American Bar Association. It is a member of the Association of American Law Schools.

While greater emphasis is placed upon North Carolina decisions, statutes, and practices than upon those of other states, legal materials are studied as a part of the Anglo-American common-law system. Thus the school prepares its students for practice in other states as well as in North Carolina.

Candidates for admission to the School of Law must have completed, with a *C* average, a minimum of three years of work acceptable toward a baccalaureate degree at an approved college or university. If this work has followed the combined degree program offered by the College of Arts and Sciences or by the School of Business Administration of this University, the student may receive the bachelor's degree in Arts or in Business Administration, as the case may be, upon the satisfactory completion of the first year in law. Though, as indicated above, students may be admitted to the School of Law on the completion of a minimum of three years of college work, the School recommends completion of the work for a degree before entering upon the study of law.

Applicants are also required to take and receive a minimum score on the Law School Admission Test. Details may be found in the Law School Catalogue.

Beginning students are admitted to the fall semester or to the Summer School, but not to spring semester.

The curriculum covers a period of six semesters.

The School of Law is located in Manning Hall. The Law Library, in the charge of a law librarian and a staff of assistants, now approximates 70,000 volumes.

The students of the School of Law are regularly enrolled in the University, enjoy all the educational privileges of University students, and are amenable to general University regulations and to the special regulations of the School.

The summer session of the School of Law offers opportunities for students to supplement the work of the regular year by additional

courses, some of which are not otherwise available, or to shorten the calendar period of study for the law degree. The summer faculty normally includes, as visiting professors, distinguished law teachers from other universities.

Opportunities for individual work are afforded to especially qualified students through membership on the student editorial staff of *The North Carolina Law Review.*

The Degree of LL.B with Honors or with High Honors

The degree of LL.B. with Honors will be awarded to those students who comply with the following requirements:

1. Complete the requirements for the LL.B. degree.
2. Attain a weighted average grade, upon all law courses taken, of 2.00 or better. (The weighted average is ascertained by assigning, for each semester hour, 1 for an *A,* 2 for a *B,* 3 for a *C,* 4 for a *D,* and 5 for an *F.* The total thus obtained is divided by the total number of semester hours taken by the student.)
3. Prepare and have accepted for publication in *The Law Review* two notes, or one article, or one note plus a contribution to the Annual Survey of North Carolina Case Law acceptable as the equivalent of a note.

The faculty of the Law School may award the degree of LL.B. with High Honors to students who, in the judgment of the faculty, have achieved exceptional distinction on their work as a whole.

For further information, write to the Dean of the School of Law for the separate bulletin of the School.

THE SCHOOL OF LIBRARY SCIENCE

CARLYLE JAMES FRAREY, A.B., M.S., *Acting Dean*
JEAN FREEMAN, A.B. (L.S.), B.A., *Assistant to the Dean*

General Statement

The School of Library Science opened in September 1931, as a unit of the University of North Carolina. Made possible originally by a grant from the Carnegie Corporation, it was the culmination of a series of library science courses offered in the summer and regular terms beginning in 1904. The School is accredited by the American Library Association and the Southern Association of Colleges and Secondary Schools.

Air-conditioned quarters for the School, comprising rooms for laboratory work, lectures, and seminars, a stack area for the School's library, and offices for the teaching and administrative staff, cover the entire top floor of the west wing of the Louis Round Wilson Library building.

The town school system maintains high school and elementary school libraries available for observation. Within driving distance of from thirty minutes to two hours are the State Library; the school and public library systems of Durham, Raleigh, and Greensboro; and the libraries of Duke University, the North Carolina State College of Agriculture and Engineering, and the Woman's College of the University of North Carolina.

The School offers three programs: an eighteen-semester-hour undergraduate program for students interested in preparing for positions as librarians in the public schools; a thirty-semester hour non-degree program which prepares for some beginning positions in North Carolina libraries; and a master's program.

Applicants may enter the School at the beginning of any term, but the beginning of the summer session or fall semester is recommended in order to insure a full program of work. Some courses have prerequisites which cannot be taken unless the curriculum is begun at one of these times.

A bachelor's degree from an approved college or university is required for admission to the program leading to a degree. A reading knowledge of modern languages is essential to satisfactory work in many types of libraries and very desirable in others. Latin is important as a basis for other languages.

Eighteen semester hours in an approved library science program is a prerequisite for admission to the program for the degree of Master of Science in Library Science.

A minimum residence of two semesters in the University of North Carolina is required for any degree. All work credited toward a degree must be completed within a period of six years.

The courses of the regular session are repeated in the summer session. The same requirements apply as in the regular session.

The present demand for professional librarians is unusually great. Requests are received almost daily from various types of libraries in this country and overseas for recommendations for all sorts of positions. Although the School cannot guarantee positions for its graduates it assists them not only in securing their first positions, but in advancing to other positions later.

Application for admission to the School for either the regular session or the summer session should be made as far in advance as possible of the session to be attended. Application should be made on forms which may be secured from the *Admissions Officer, School of Library Science, The University of North Carolina, Chapel Hill, N. C.*

For further information regarding the undergraduate courses see School of Library Science, Part IV; for the graduate courses see the special catalogue of the School.

THE SCHOOL OF SOCIAL WORK

ARTHUR EMIL FINK, Ph.D., M.S.W., *Dean*

General Statement

The School of Social Work has developed from an earlier School of Public Welfare which was established in 1920 in accordance with the University's policy of meeting the varying needs of the state and the Southern region. In 1931 the School of Public Administration enlarged and extended the program for the training of qualified persons for public positions. An essential division within that school was the Division of Public Welfare and Social Work. In 1936 the Division of Public Welfare and Social Work became a Division of the Graduate School and in 1950, by action of the Board of Trustees, it was named the School of Social Work. The School of Social Work is a member of the Council on Social Work Education.

The School of Social Work consistently has emphasized sound training for the operation of the social services, whether those services are under public or private auspices. However, by reason of the nature and range of many of the problems in a state and region still predominantly non-urban there has been special reference to the unique opportunities for training workers to provide the highest quality of services in rural as well as in urban communities.

The applicant for admission to the Graduate School to pursue studies leading to the degree of Master of Social Work must have received a bachelor's degree from a college or university of recognized standing. The undergraduate courses must have included eighteen semester hours in anthropology, economics, history, political science, psychology, and sociology, at least six semester hours of which must have been in advanced courses in one of those fields. Admission to the School is based on an evaluation of the student's transcript, the Graduate Record Examination (Aptitude part only), references, written statement of his interest in the field and readiness to undertake graduate professional training, and a personal interview.

The closing date for first year applications is August 15; and for second year applications May 15.

The Master of Social Work degree is based upon a two-year program, consisting of two semesters of the first year, followed by the second term of the Summer Session, and the fall and spring semesters. Admission to the first year is in September, while the second-year program begins in mid-July and is completed the following June. Supervised field work takes place in social welfare agencies away from the campus: for first-year students from December 1 to March 15, and for second-year students from early September to late February.

The first year program is basic to whatever area of social work practice the student may eventually enter. During the second year, opportunity is offered for concentration in the following casework settings: family service, child welfare, public assistance, family court, juvenile court, correctional institution, medical social service, school social services, child guidance clinic, mental hygiene clinic, outpatient psychiatric clinic, state mental hospital, veterans' hospital, Travelers Aid, children's institution, and children's residential treatment center. Training is also available during the second year in social agency administration for persons currently engaged in administrative or supervisory practice.

A variety of scholarships and other financial resources are available. Scholarship assistance to workers in North Carolina public welfare departments is possible through the North Carolina Board of Public Welfare. Inquiry should be directed to the Commissioner of the State Board of Public Welfare, Raleigh, N. C. Departments of public welfare in other states may also assist their residents. Inquiry should be addressed to the appropriate state welfare commissioner or director.

Under the provisions of the National Mental Health Act there are a number of fellowships for the training of psychiatric social workers, and school social workers. Awards are made after admission has been granted. Application should be made directly to the Dean of the School of Social Work.

The North Carolina Medical Care Commission makes loans (cancelable upon subsequent employment in the state mental hospitals system) to students training in psychiatric social work. Inquiry may be made of the North Carolina Medical Care Commission, Raleigh; or to the Dean of the School of Social Work.

Grants by state mental health departments may be made through the respective states in which the applicant maintains residence. Veterans' Administration work-study arrangements are possible. In addition there are scholarships designated by various private welfare agencies throughout the state and the region. Inquiries, except for grants made by state departments of public welfare, should be directed to the Dean of the School of Social Work.

Scholarships are available to assist students during the Master of Social Work degree program who already have been granted scholarships during the junior and senior years of undergraduate education for the purpose of training to be medical social workers. Inquiries may be made of Health Scholarships, Department of Professional Education, The National Foundation, 800 Second Avenue, New York 17, N. Y.; or the Dean of the School of Social Work.

Further information and the separate bulletin may be secured from the School of Social Work, Post Office Box 69, Chapel Hill, N. C.

THE SUMMER SESSION

ARNOLD KIMSEY KING, Ph.D., *Director*

General Statement

One of the earliest summer schools in America was established at the University of North Carolina in 1877. Eighteen sessions were held during the next thirty years. The Summer Session has operated annually since 1907 and has come to be an integral part of the academic organization of the University.

Curricula and courses that are offered during the Summer Session in all departments, schools, and colleges are identical with those of the fall and spring semesters. With a few exceptions, students may make progress toward fulfilling requirements for all undergraduate and graduate degrees offered by the University. All academic matters and all matters involving student activities in the summer are under the direction of the deans and departmental chairmen who handle these areas in the fall and spring semesters.

The Summer Session is divided into two terms of approximately six weeks each.

Admissions

The summer program is planned especially to meet the needs of the following groups: (1) graduates of accredited high schools who are entering the freshman class, (2) undergraduate and graduate students who are meeting degree requirements at this institution, (3) undergraduate and graduate visiting students who desire to take courses for transfer to other institutions, (4) teachers and administrators who desire to meet state certification regulations, and (5) other students who have special educational objectives and are not applicants for credit toward a degree.

Women students are eligible for admission to all University classes in the summer.

Persons who desire to be admitted or readmitted in the Summer Session as regular undergraduate students should write to the Director of Admissions and as regular graduate students to the Dean of the Graduate School. Those who desire a copy of the Summer Session Catalogue or other information and those who desire to enroll in the summer as visiting students should write to the Director of the Summer Session, Box 1251, Chapel Hill, N. C.

THE DIVISION OF HEALTH AFFAIRS

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator*
SYDENHAM BENONI ALEXANDER, A.B., M.D., *Assistant Administrator*
GEORGE M. NORWOOD, JR., B.S., *Business Officer*

The President, the Chancellor, and the Administrator of the Division head each school in the Division of Health Affairs.

The Division of Health Affairs of the University includes the schools of Medicine, Dentistry, Public Health, Nursing, and Pharmacy, the North Carolina Memorial Hospital (including the Psychiatric Center), and the Division of Health Affairs Library. It was established for the purpose of integrating and correlating the work of these professional schools and the teaching hospitals in their teaching and research programs within the University. Equally important, the Division through its Administrator and Advisory Board seeks to correlate the teaching, research, and service functions of the University Health Center with the hospital and health agencies and services throughout the state.

Administratively the Division is under the direction of a full-time administrator, with an Advisory Board composed of the deans of the various professional schools concerned, the Director of the North Carolina Memorial Hospital, and the Chief of Staff of the Hospital.

The Advisory Board of the Division of Health Affairs serves as the Administrative Board of schools in the Division. (See under Division of Health Affairs in "Officers and Administrative Boards of Colleges and Schools" in Part VI.)

The Division of Health Affairs Library

MYRL LUA-FRANCES EBERT, B.S., B.S. in L.S., M.S., *Librarian*

The Division of Health Affairs Library is located on the third floor of the Clinic Building, and with two branch libraries in other buildings, contains the collections for the schools of Medicine, Public Health, Dentistry, Pharmacy, and Nursing. Reorganized in 1952 when the two-year medical school expanded into a full four-year curriculum, and the concept of an integrated professional program emerged, the Library now possesses over 80,000 volumes to which approximately 4,000 are being added annually. Over 1,500 serial titles are received currently. A staff of 20 full and part-time libarians and assistants are available for reference service and general aid in the use of the library. Informal lectures are given throughout the year in use of library resources and bibliographical research by the librarians.

In addition to the facilities of the General University Library with its departmental libraries of biology, chemistry, physics, etc.—which have over 1,000,000 volumes—the Division Library enjoys close affiliation with the General and Hospital Libraries of Duke University in Durham.

THE SCHOOL OF DENTISTRY

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean*
WILLIAM WELLESLEY DEMERITT, D.D.S., *Assistant Dean*

General Statement

While the North Carolina Dental Society had given considerable thought to the organization of a School of Dentistry even as early as 1921 in the appointment of the first Dental College Committee, it was not until 1947 that a basic dental survey of North Carolina was authorized by the Society. The General Assembly of 1949, having studied the findings and recommendations of the survey, appropriated funds for the establishment of a School of Dentistry.

The new building of the School of Dentistry is an integral part of the total building program of the Division of Health Affairs, including the Memorial Hospital, Tuberculosis Hospital, the School of Medicine for the teaching of the basic sciences, School of Nursing, and the intern and resident quarters.

Dentistry in North Carolina has been given a signal opportunity to make a contribution to the health sciences in its close working relationship with the schools of the Division of Health Affairs and the Memorial Hospital. Students of dentistry and medicine attend comparable basic science courses, and they are required to meet equally high academic standards in all areas.

Each class will be limited to fifty students. Priority in selection of students will be given to residents of North Carolina, and secondly, to residents of the Southeastern states.

A two- and a four-year curriculum for the training of dental hygienists was activated in the fall of 1953. Girls who have graduated from high school are permitted to enter this program for training. The two-year curriculum will lead to certification, while the four-year curriculum will lead to a bachelor's degree. Priority for admission will be given to North Carolina residents.

The School of Dentistry, University of North Carolina, is fully accredited by the Council on Dental Education of the American Dental Association. This includes the curriculums leading to the D.D.S. degree, as well as the Certificate in Dental Hygiene.

PREPARATION FOR STUDY OF DENTISTRY AND REQUIREMENTS FOR ADMISSION

Students preparing for the study of dentistry should spend as much time securing a well-rounded cultural education as their age and financial resources permit. If possible they should complete the regular four-year course leading to the A.B. or B.S. degree. If this is impracticable they may take the special course leading to the B.S. in Den-

tistry, or they may take three years of academic work without the bachelor's degree in view, but with careful regard to meeting the specific requirements for admission to the School of Dentistry.

Three years of accredited college work (96 semester hours) are required for admission. This period of study should include eight or more semester hours of inorganic chemistry; a course in qualitative and in quantitative analysis; eight semester hours of organic chemistry; eight semester hours of biology; eight semester hours of physics (which must have required trigonometry as a prerequisite); and English—such knowledge as is ordinarily required of candidates for a degree in an approved college (usually the courses required of freshmen and sophomores).[1] In addition, courses in volumetric quantitative analysis, comparative anatomy, vertebrate embryology, and modern physics are recommended.

Because of the widening social economic interests of the dental profession, students preparing to enter it should take, in addition to the requirements in the sciences, as many courses as possible in social science, history, literature, economics, philosophy, and psychology.

There are not sufficient facilities in the dental schools of the country to admit all students who meet the quantitative standards. For this reason, and because it requires more than average intelligence and aptitude to complete satisfactorily the dental curriculum, the quality of the student's undergraduate work is of the greatest importance.

National Aptitude Test

All prospective students must complete the National Aptitude Test, given by the Council on Dental Education of the American Dental Association, before they will be considered for admission to the School of Dentistry. This test will be given in Chapel Hill and at centers in other states at designated intervals. Additional information regarding the test may be secured when application for admission to the School of Dentistry has been completed.

Personal Qualifications

While a high grade of scholarship and digital dexterity are probably the best criteria for predicting achievement in dental school the personal qualifications of applicants are of the highest importance. Moral character is the most important prerequisite for entering the dental profession. No school wishes to train prospective dentists who lack either ethical standards or a sense of social responsibility.

1. While a modern foreign language is recommended, it is not a requirement for admission to the School of Dentistry. However, all high school deficiencies must be satisfied as they pertain to admission to the University.

Dental Curriculum

The course in dentistry embodies a four-year curriculum following admission to the School of Dentistry. The catalogue of the School of Dentistry provides a description of the courses and other details pertaining to the study of dentistry. This catalogue may be secured from the School of Dentistry.

Dental Hygiene Curriculum

A two-year curriculum leading toward a certificate and a four-year curriculum leading toward the degree of B.S. in Dental Hygiene are offered. The regular School of Dentistry Catalogue gives complete information regarding curriculum, costs, and other items of information. This catalogue may be secured by writing to the Director of Admissions, Drawer 111, Chapel Hill, N. C.

Graduate Programs

See the catalogue of the Graduate School or the School of Dentistry for information concerning graduate programs in pedodontics, oral surgery, orthodontics, oral pathology, and prosthodontics.

THE SCHOOL OF MEDICINE

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean*
CARL ELMORE ANDERSON, Ph.D., *Assistant Dean for Student Affairs*
WILLIAM LEROY FLEMING, M.S., M.D., *Assistant Dean for Education and Research*
WILLIAM PERRY RICHARDSON, A.B., M.D., M.P.H., *Assistant Dean for Continuation Education*
JOHN MITCHELL SORROW, B.S., M.D., *Assistant to the Dean*

Historical Background

The School of Medicine was established in 1879 under the direction of Dr. Thomas W. Harris. A course in theoretical and practical medicine was offered under the preceptorial system, but the plan was found impracticable and was abandoned in 1886. In 1890, a more orderly and logical arrangement of the subjects in the medical course having developed, it became possible for an institution without clinical facilities to offer instruction in the preclinical subjects, and the school was reopened with Dr. Richard H. Whitehead as Dean and Professor of Anatomy. Under his guidance it soon won recognition for thoroughness of instruction and excellence in scholarship and has since continued without interruption. At first the course covered only one year, but in 1896, the medical course having been extended in the better class schools to four years, a two-year course was inaugurated. In 1900, the School of Medicine was incorporated as an integral part of the University and was reorganized to meet the requirements of the first two years of the full four-year course leading to the degree of Doctor of Medicine. In 1902, it was expanded into a four-year school, and the clinical subjects of the third and fourth years were offered in Raleigh under the direction of Dr. Hubert A. Royster as Dean. After a few years of successful operation this plan had to be abandoned in 1910 for lack of financial support, and the clinical years were discontinued.

From 1911 through 1952 the first two years of the medical curriculum were continued at Chapel Hill, and students satisfactorily completing this curriculum were transferred to the leading four-year schools of medicine in the East, South, and Middle West for the completion of their medical training. Approximately 25 per cent of the physicians now in active practice in North Carolina received the first two years of their medical training at the University.

The General Assembly of 1947 provided funds for the construction of a four-hundred-bed general hospital, enlargement of the Medical Science Laboratory Building, a school of nursing and residence halls for nurses and intern and resident staff, and authorized the expansion of the two-year school into a full four-year curriculum as a part of a general state-wide program for better hospitalization and medical care in North Carolina.

Subsequently, General Assemblies have provided funds for a one-hundred-bed tuberculosis and chronic chest disease hospital, for a seventy-bed psychiatric wing to the general hospital, and for a dental clinic building for the School of Dentistry, all of which have been completed and are in operation.

The expansion now completed provides again for instruction in the clinical years, this time on the campus at Chapel Hill. With the opening of the fall session in 1952, a junior class was admitted. In the fall of 1953, all four classes were in training and the first class graduated in 1954. The School has been a member of the Association of American Medical Colleges since 1908 and has the full approval of the Council on Medical Education and Hospitals of the American Medical Association.

PREPARATION FOR MEDICINE AND REQUIREMENTS FOR ADMISSION

Students preparing for the study of medicine should secure a broad cultural education. Specific requirements for admission to the School of Medicine must be met but emphasis is placed on the attainment of a liberal education leading to the completion of a four-year course and a B.A. or B.S. degree. Alternate plans which are less desirable are a special course leading to the B.S. in Medicine degree and a three-year plan of academic work without regard to the bachelor's degree. If the latter plan is chosen, careful regard should be given to meeting the requirements for admission to the School of Medicine.

It is because of the widening social and economic responsibilities of medicine that students in preparing for this profession should take as many courses as possible in the humanities, arts, and social sciences. Students are encouraged to select their majors freely in accord with their desires and interests but with the general effort to gain a broad background in fields other than the sciences related to the study of medicine.

Three years of accredited college work (96 semester hours or 144 quarter hours). This period of study should include as minimum: 8 or more semester hours (12 or more quarter hours) of inorganic chemistry, including qualitative and quantitative analysis; 8 semester hours (12 quarter hours) of organic chemistry; 8 semester hours (12 quarter hours) of biology including vertebrate zoology; 8 semester hours (12 quarter hours) of physics with trigonometry as a prerequisite; 12 semester hours (20 quarter hours) of English, or such knowledge as is ordinarily required for a liberal arts degree; 9 semester hours (15 quarter hours) of foreign language, or such knowledge as is ordinarily required for a liberal arts degree.

There is not sufficient space in the medical schools to admit all students who meet the quantitative standards. For this reason, and

because it requires more than average intelligence and aptitude to complete satisfactorily the medical curriculum, the quality of the student's undergraduate work is of the greatest importance. All students interested in the study of medicine should attempt to stand in the upper third of their academic classes.

While a high grade of scholarship is probably the best criterion for predicting achievement in medical school, the personal qualifications of applicants are of the highest importance. Moral character is the most important prerequisite for entering the medical profession. No school wishes to train prospective physicians who lack ethical standards or a sense of social responsibility.

All admissions are decided by the Dean and a special committee on admission.

The Dean and the committee reserve the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of medicine.

Medical Curriculum

The course in medicine embodies a four-year curriculum. The catalogue of the School of Medicine provides a description of the courses.

Special Students

In addition to teaching medical students and graduate physicians, various departments in the Medical School offer instruction to students in related professional schools and the Graduate School. Students interested in such instruction should consult the chairman of the department concerned.

For details of the curricula leading to the Bachelor of Science degree in Medical Technology and in Physical Therapy see pages 56 and 47, respectively, of this catalogue and consult the special catalogue of the School of Medicine.

The North Carolina Memorial Hospital

The North Carolina Memorial Hospital, an integral part of the School of Medicine, provides the laboratory for clinical teaching for both undergraduate and graduate physicians. Opened in 1952, it was designated by action of the General Assembly of 1951 as the state's memorial to its war dead.

In addition to its function as a laboratory for clinical teaching it serves as a diagnostic and treatment referral center for patients from all over North Carolina, both outpatient and inpatient, and as a

center for a varied and extensive program of medical research. It makes available those highly skilled and specialized services needed for modern scientific medical care which can be provided only by a large, complex medical center.

It is fully accredited by the Joint Committee on Accreditation of Hospitals. It is approved by the Council on Medical Education and Hospitals of the American Medical Association for internship and for residencies in medicine and surgery and most of the medical and surgical specialties.

THE SCHOOL OF NURSING

Elizabeth Louanna Kemble, R.N., B.S., A.M., Ed.D., *Dean*

General Statement

The School of Nursing offers a four-year curriculum leading to the degree Bachelor of Science in Nursing. The program of studies is designed to provide well-organized learning experiences leading to the graduation of students who have acquired the necessary knowledges, skills, attitudes, and appreciations to function effectively in beginning positions of the profession, including public health nursing.

The program of studies covers four academic years and three terms of summer sessions. Courses are planned to include the social, biological, and physical sciences, the humanities, and nursing. Provisions are made for students to receive selected learning experiences in the hospitals, clinics, and a variety of institutions and agencies in the state. Through these planned experiences students acquire the understandings essential to maintenance of health, prevention of disease, and the care of those who are sick.

The School of Nursing also provides opportunity for graduates of diploma programs to receive comparable preparation. The length of this program is determined on an individual basis, depending in part upon previous preparation, experience, and the results of graduate nurse examinations.

The School of Nursing has been granted full accreditation for the undergraduate program, including public health nursing, by the Department of Baccalaureate and Higher Degree Programs of the National League for Nursing. The School of Nursing is a member agency of the National League for Nursing in the Department of Baccalaureate and Higher Degree Programs.

Students in the School of Nursing enjoy all the privileges of the University and are subject to all general regulations.

Classes are admitted in the fall semester of each year.

REQUIREMENTS FOR ADMISSION

Applicants must first meet the requirements for admission to the University. Academic admission requirements of the University and the School of Nursing include the following high school units:

English	4	
Foreign Language	2	(one language)
Algebra	1½	
Plane Geometry	1	
Social Science	2	(one unit to be United States history)
Natural Science	1	(chemistry, including laboratory, preferred)
Physics, Biology or General Science	1	
Electives	2½	
	15	

All deficiencies must be removed before admission to the School of Nursing.

In addition to satisfactory academic achievement, applicants are required to present evidence of physical and emotional fitness for nursing.

It is preferable for applicants to be between the ages of 17 and 25. Exceptions will be considered on an individual basis.

Applicants who have had one or more years of college work and who wish to transfer to the University of North Carolina School of Nursing are required to present at least a *C* average. Credits for certain courses at a recognized college or university are transferable to the University.

Eligibility for admission of registered nurses will be considered on an individual basis.

Further information may be obtained by writing to the Director of Admissions, University of North Carolina.

All admissions are decided by the Dean and a special committee on admission of the School of Nursing, after approval of credentials by the Director of Admissions of the University. This committee reserves the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of nursing.

Graduate Program

For graduate study in nursing see School of Nursing or Graduate School catalogues.

THE SCHOOL OF PHARMACY

EDWARD ARMOND BRECHT, Ph.D., *Dean*
MELVIN ARTHUR CHAMBERS, Ph.D., *Assistant Dean*

General Statement

Instruction in pharmacy was offered at the University in the School of Medicine and Pharmacy from 1880 to 1886 and 1890 to 1892, but very few students elected the course. Finally, in March 1897, in response to urgent requests made by the pharmacists of the state, the present school was established, and Edward Vernon Howell was appointed Professor of Pharmacy and Dean.

The School occupies a building constructed for its use and completed in 1959. The building with 69,240 square feet of floor space has complete facilities for the undergraduate and graduate curricula.

Five years of study are required for the degree of Bachelor of Science in Pharmacy (S.B. in Phar.).

The School was admitted to membership in the American Association of Colleges of Pharmacy in 1917. This organization was formed for the promotion of thorough scientific work in the profession of pharmacy. It maintains high standards for membership based on the number and training of the faculty, the thoroughness of the work offered, the quality of the curriculum, the number of students, the financial support of the school, and the facilities for carrying on the work.

The School of Pharmacy of the University of North Carolina is accredited by the American Council on Pharmaceutical Education. The School is fully accredited by all state examining boards.

Freshmen are admitted to the General College for a year of pre-pharmacy. Candidates for admission as transfer students must have credit for the academic courses in the first-year curriculum. Each application for admission must be approved by the Director of Admissions of the University. Applications should be filed as early as possible, preferably in the period before February 1.

A student who has completed one or more years of accredited work in a recognized school of pharmacy and submits satisfactory evidence of having completed the entrance requirements and courses equivalent to those prescribed in the curriculum required for the degree of S.B. in Pharmacy may be admitted with advanced standing and proceed for this degree. The minimum requirement of residence for a degree is a period of two semesters within the period of twelve months. A full year's work comprising at least thirty semester hours must be completed by a transferring student. Beginning January 1, 1938, the American Association of Colleges of Pharmacy has required of its member colleges that students transferring from a non-pharmaceutical

college must spend a minimum of three years in a standard college of pharmacy in order to be graduated with a degree of S.B. in Pharmacy.

The School of Pharmacy is compelled by its physical facilities to limit the number of beginning and transfer students.

The School of Pharmacy recognizes that its graduates may elect to pursue one or another of related but definitely different forms of pharmaceutical practice and has provided such specialized training.

Graduate degrees offered in the School of Pharmacy are administered by the Graduate School of the University of North Carolina. These degrees are Master of Science (S.M.) and Doctor of Philosophy (Ph.D.). The two majors available are pharmacy and pharmaceutical chemistry.

For further information, please write to the Dean of the School of Pharmacy for the special catalogue of the School.

THE SCHOOL OF PUBLIC HEALTH

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean*
MILLARD BAIMBRIDGE BETHEL, M.D., M.P.H., *Assistant Dean*

General Statement

The School of Public Health is one of twelve such schools in the United States accredited by the American Public Health Association. It is a member school of the University's Division of Health Affairs, which is the focal training and service point for an integrated statewide health program.

The special disciplines of public health are administration, biostatistics, epidemiology, health education, maternal and child health, mental health, nursing, nutrition, parasitology, and sanitary engineering. The final goal of instruction is the production of interdisciplinary public health teams.

Toward this end many communities of the state assist as field centers and laboratories for student-faculty teams. For longer periods of field experience, training units have been established in twenty-nine city, county, and district health departments in North Carolina and thirteen other states.

The School of Public Health enjoys the active cooperation of the State Board of Health at Raleigh. Members of that staff give lectures and exercises in their special fields. Students have an opportunity to observe and study at first hand the practice, methods, and materials of an efficient state health organization. Relationships are maintained too with North Carolina Memorial Hospital, the Institute of Statistics at North Carolina State College in Raleigh, with Duke University and Duke Hospital in Durham, and with Watts Hospital in Durham. The staffs of the U. S. Public Health Service, the Childen's Bureau, and other agencies of the U. S. Department of Health, Education, and Welfare participate in the teaching program of the School of Public Health through lectures, discussions, consultations, and research.

In addition to its academic responsibilities, represented by departments for each of the disciplines mentioned above, the School of Public Health has two other major functions: research and service to the state and region. Varied research is conducted by all departments. Similarly, all departments render field service to the state.

Graduate degrees offered by the School of Public Health are the Master of Science (M.S.), Doctor of Philosophy (Ph.D.), and the following professional graduate degrees: Master of Science in Public Health (M.S.P.H.), Master of Public Health (M.P.H.), Doctor of Public Health (Dr.P.H.), and Master of Science in Sanitary Engineering (M.S.S.E.). All requirements concerning these degrees are

administered by the faculty of the School of Public Health with the approval of the Administrative Board of the Graduate School.

An undergraduate degree, Bachelor of Science in Public Health Nursing (B.S.P.H.N.), is awarded to graduate nurses who comply with all requirements of the public health nursing course and who have had the required years and courses in college. There are also a four-year program leading to the Bachelor of Science in Public Health (B.S.P.H.) and a four-year program developed cooperatively with the School of Education for the degree of Bachelor of Science in Health Education (B.S. in H.E.). The first two degrees are administered by the School of Public Health; the third, by the School of Education.

Beginning with the 1961-62 academic year, the School of Public Health entered upon a quarter system program of study. For information concerning preparation and admission requirements and proposed curricula leading to degrees, see the catalogue of the School of Public Health.

THE GRADUATE SCHOOL

GEORGE ALEXANDER HEARD, Ph.D., *Dean*
JAMES REUBEN GASKIN, Ph.D., *Associate Dean*
WILLIAM FREDERICK LITTLE, Ph.D., *Assistant to the Dean for Research Administration*
GEORGE SCHLAGER WELSH, Ph.D., *Coordinator, Undergraduate Honors and Master's Degree Program*

The Graduate School, as one of the three coordinate divisions administering instructional programs, is headed by the President, the Chancellor, and the Dean of the Graduate School. Relationship of the Graduate School to the Graduate Executive Council of the University of North Carolina is explained in the special catalogue of the School.

General Statement

To those who have already completed a college course, the Graduate School offers an opportunity for advanced study in many learned disciplines and professional programs. One of a relatively small number of institutions with membership in the Association of American Universities, the University is held in high regard both in the United States and in other countries for the excellence of its graduate programs. Through its research organizations and learned journals and through the publications and other contributions of its faculty, the University of North Carolina has earned the authority to give advanced instruction. To promote the cause of learning, it has continually endeavored to maintain a distinguished faculty, an excellent research library, and modern, well-equipped laboratories.

Instruction leading to the master's degree was offered at this institution previous to the American Civil War, and such higher degrees were granted in course. Formal action with high standards in requirements was taken in 1876 to establish a system of graduate, as distinct from undergraduate, instruction. The first doctor's degree was awarded in 1883. A Graduate Bulletin, issued in 1885, showed that nearly all departments offered advanced courses. The number of students during those years was small, but the work accomplished in both the humanities and the sciences was of distinguished quality. Given distinct status in 1903 and the leadership of a dean, the Graduate School has experienced steady and, since 1920, rapid growth.

Work for advanced degrees is under the supervision of the graduate faculty. Under authority delegated by the graduate faculty, the immediate direction of the Graduate School is in the charge of an Administrative Board, of which the Dean is chairman. Special requirements and regulations made by this board are outlined in the catalogue of the Graduate School, which is published annually and is the official publication of the Graduate School.

Master's Degree Program

The Undergraduate Honors and Master's Degree Program comprises the last two years of undergraduate work, usually in the College of Arts and Sciences, and the first year of graduate work.

1. Purpose of the Program: to enable undergraduates who intend to enter Graduate School to begin advanced work as soon as feasible and to facilitate their progress toward the master's degree.

2. Eligibility: students who are enrolled or who are eligible to enroll in an undergraduate Honors Program in a department of the College of Arts and Sciences (see Degrees with Honors); although requirements vary from department to department, an overall *B* average is generally required. Students who do undergraduate work of honors quality in the professional schools may also be eligible.

3. Application: to the Coordinator, Undergraduate Honors and Master's Degree Program. Students should apply for admission to this program at the end of their sophomore year or at the beginning of their junior year when they apply for admission to an Honors Program in a specific department. In this way the coordinator and the departmental adviser can work together with the student in developing his program.

4. Nature of the Program: Candidates will be counselled to complete preparations for the required reading examination in a modern foreign language given by the Graduate School as soon as possible; they may take the examination as early as the second semester of their junior year and are expected to pass it by the end of their senior year. When the academic load permits, they will take courses for graduate credit in the second semester of the senior year. Candidates will be encouraged to identify masters' theses topics while still undergraduates; they may actually begin work on the thesis problem during their senior year.

The coordinator will assist the departmental adviser in insuring the candidate's progress through the program. In addition, candidates will be eligible to compete for one of the two special fellowships available through the program; they will be assisted in applying for other local, regional, or national awards.

CURRICULA AND DEGREES

The degrees under the supervision of the graduate faculty are the Master of Arts (A.M.), Master of Science (S.M.), and Doctor of Philosophy. Degrees of Master of Arts or Master of Science are offered in anthropology, art, bacteriology and immunology, biochemistry and nutrition, botany, chemistry, classics, dramatic art, economics and business administration, education and physical education, English, geology and geography, Germanic languages, history, journalism, mathematics, music, oral pathology, oral surgery, orthodontics, pathol-

ogy, pedodontics, periodontology, pharmaceutical chemistry and pharmacy, philosophy, physics, physiology, political science, prosthodontics, psychology, Romance languages, sociology and rural sociology, statistics, and zoology, and in the special curricula in comparative literature, folklore, linguistics, and personnel administration. The degree of Doctor of Philosophy is offered in anthropology, bacteriology, biochemistry, botany, chemistry, city and regional planning, classics, economics and business administration, education, English, geology and geography, Germanic languages, history, mathematics, music, parasitology, pathology, pharmacy, philosophy, physics, physiology, political science, psychology, public health education, public health statistics, Romance languages, sanitary science, sociology, statistics, and zoology, and in the curricula in comparative literature and linguistics. Minor programs for the doctorate may be obtained in the curricula in folklore and personnel administration.

Professional graduate degrees are offered in art (Master of Arts in Creative Art), business (Master of Business Administration), communication (Master of Arts in Communication), dentistry (Master of Science in Pedodontics, Master of Science in Oral Surgery, Master of Science in Orthodontics, Master of Science in Oral Pathology, Master of Science in Periodontology, and Master of Science in Prosthodontics), education (Master of Education and Doctor of Education), library science (Master of Science in Library Science), music (Master of Music), nursing (Master of Science in Nursing), public health (Master of Science in Public Health, Master of Public Health, Master of Science in Sanitary Engineering, and Doctor of Public Health), recreation administration in the Department of Sociology and Anthropology (Master of Science in Recreation Administration), regional planning (Master of Regional Planning), and social work (Master of Social Work).

Curriculum in Comparative Literature

Administrative Committee: Professor W. P. FRIEDERICH, *Chairman;* Professors H. E. DAVIS, C. H. HOLMAN, J. G. KUNSTMANN, S. A. STOUDEMIRE, A. I. SUSKIN.

The Curriculum in Comparative Literature offers students an opportunity to become familiar with the work of the leading figures of Western literature and facilitates the systematic study of subjects, problems, forms and movements common to the various literatures. All students are urged to take the majority of their courses in the individual departments and languages chosen by them (only Greek and Latin literature courses may be taken in translation, if they are not the major field), but a strong minority of their courses must be taken in the distinctly comparative offerings.

Curriculum in Folklore

Administrative Committee: The Dean, *Chairman;* Professor A. P. HUDSON, *Secretary;* Professors U. T. HOLMES, G. B. JOHNSON, J. E. KELLER, J. G. KUNSTMANN, S. A. STOUDEMIRE.

The facilities of the University available in the departments of English, Germanic Languages, Music, Romance Languages, and Sociology and Anthropology have been mobilized in the interest of students who desire to undertake a major or a minor in folklore. A candidate for the A.M. degree may secure a major and a candidate for the Ph.D. degree may secure a minor in that subject.

Curriculum in Linguistics

Administrative Committee: The Dean, *Chairman;* Professor L. LEVINE, *Secretary;* Professors W. W. ARNDT, V. CANTARINO, N. E. ELIASON, J. R. GASKIN, R. J. GETTY, U. T. HOLMES, J. E. KELLER, G. S. LANE, R. W. LINKER, R. T. TAYLOR.

In this curriculum the facilities available within the University for the study of structural, comparative, and historical linguistics are organized. It is possible for students to submit programs of study in linguistics leading to the degrees of Master of Arts and Doctor of Philosophy. It is also possible for those with majors in certain departments to secure a minor in linguistics.

Curriculum in Personnel Administration

Administrative Committee: The Dean, *Chairman;* Professor P. W. WAGER, *Secretary;* Professors A. K. KING, E. W. NOLAND, W. D. PERRY, D. A. WOOD.

This curriculum mobilizes the instructional resources having relation to personnel administration which have developed in the schools of Business Administration, Education, and Social Work, and in the departments of Economics, Political Science, Psychology, and Sociology. Opportunities are afforded qualified students to select programs of study which cut across departmental lines. Students may also choose definite areas of specialization within the respective departments which provide programs of concentrated study.

Curriculum in Recreation Administration

Administrative Committee: The Dean, *Chairman;* Professor H. D. MEYER, *Director;* Professors C. H. BOWERMAN, F. C. CLEARY, H. D. SESSOMS.

This special program leading to the degree of Master of Science in Recreation Administration brings into cooperation several disciplines which include the schools of Business Administration, Social Work, and Education, and the departments of Dramatic Art, Physical Education, Political Science, and Sociology and Anthropology. Although a common core of courses is required, there are, through the minor field offerings, many diversified areas for specialization. Within the curriculum is a special option in recreation for the ill and handicapped.

Summary of Requirements for the Degree of Master of Arts or Master of Science

1. A bachelor's degree from a recognized institution.
2. A minimum residence period of two semesters or part-time residence credit sufficient in amount for completion of the course requirement. All work credited toward degrees must be completed within a period of six years.
3. A reading knowledge of one modern foreign language. This requirement must be satisfied prior to admission to candidacy.
4. Application for admission to candidacy for the master's degree must be filed four months before the date at which the degree is expected.
5. Thirty semester hours, eighteen to twenty-one of which must be in the department of the major, and nine to twelve in the department of the minor.
6. A written examination in the field of the major.
7. An oral examination covering the entire field of study.
8. A thesis.

Summary of Requirements for the Degree of Doctor of Philosophy

1. Admission is the same as for the master's degree.
2. A minimum of three years of graduate study, at least one of which must be at the University of North Carolina.
3. A reading knowledge of two modern foreign languages recommended by the department of the major.
4. Application for admission to candidacy for the Ph.D. degree must be filed one academic year, or two semesters, before the date at which the degree is expected.
5. A major adequately covering the field of major interest and at least eighteen to twenty-four semester hours in a minor, which may or may not be in a different department.
6. A preliminary oral examination.
7. A written examination in the field of major interest.
8. An oral examination covering the dissertation and such topics as the examination committee may determine.
9. A dissertation.

Summary of Requirements for Professional Degrees

Requirements for professional graduate degrees, under the supervision of the graduate faculty, are described in the Graduate Catalogue and in some special catalogues of schools and departments concerned. Since these requirements differ in some respects from those summarized above, the special catalogues for the following should be consulted: School of Business Administration, Department of City

and Regional Planning, School of Dentistry, School of Education, School of Library Science, School of Nursing, School of Public Health, School of Social Work, and the Department of Radio, Television, and Motion Pictures.

Catalogue of the Graduate School

For information concerning the graduate faculty, fields of research, fellowships and other aids, expenses and tuition, and for regulations governing courses of study, credits, admissions, examinations and higher degrees, references must be made to the special catalogue of the Graduate School.

Part Four

ACADEMIC DEPARTMENTS

DESCRIPTION OF COURSES

In this section are listed all courses offered in the regular sessions of the University except those in the professional schools of Law, Medicine, Dentistry, Nursing, Pharmacy, Library Science, and Social Work. For courses in these schools see the special bulletins.

The requirements for majors are shown, after the faculty lists, in connection with the materials concerning the various departments.

The work of the University, except in the schools of Dentistry, Medicine, and Public Health, is arranged and offered on the semester system, the regular session being divided into two approximately equal parts called the fall and spring semesters. The summer session is divided into two terms.

Work is valued and credited toward degrees by semester hours, one such hour being allowed for each class meeting a week for a semester, laboratory or field work counting one hour for each two hours of work in laboratory or field, and work in studio (art) counting one hour for each three hours. In the following announcements of courses the numbers in parentheses following the descriptive titles show the credits allowed in semester hours. Except in the case of courses meeting regularly three times a week, the number of actual hours a course meets will be found in the description of the course. The meetings of a few advanced courses, however, are arranged by the instructor in charge.

In the event that required freshman subjects are taken after a student begins his junior year or required sophomore subjects after he begins his senior year, such subjects carry half credit only.

Courses numbered from 1 through 99 are for undergraduates only; those numbered from 100 through 199 are for advanced undergraduates and graduates; those numbered from 200 to 400 are for graduates only. Undergraduates may not take courses numbered above 200 except by special permission of the instructor in the course and the chairman of the department. Permission must also be secured from the Dean of the Graduate School and the dean of the college involved. Courses numbered from 1 to 100 carry no credit toward any advanced degree.

DEPARTMENT OF AIR SCIENCE

Professor: GORDON D. KAGE, *Lieutenant Colonel,* USAF
Assistant Professors: W. D. LOCKE, *Major,* USAF; W. E. MOORE, *Captain,* USAF; J. R. MILLIGAN, *Captain,* USAF
Administrative: C. M. LONG, *Technical Sergeant,* USAF; T. R. REGISTER, JR., *Airman First Class,* USAF
Supply: C. R. CRAWFORD, *Technical Sergeant,* USAF

General Information

The purpose of the Air Force Reserve Officers Training Corps is to provide top quality college graduates for a commission and career in the regular establishment of the Air Force. Admission to the advanced course is by selection. Standards for the advanced course are high and cadets with the better academic and leadership qualifications who are qualified to fly, and desire to fly, are given first consideration. Those seniors who are designated as pilot trainees will receive 35 hours flying training in their senior year.

University Status

The Air Force ROTC unit constitutes a regular department of instruction within the University. It is known as the Department of Air Science. Academic credits toward degrees are allowed, and participation in the Air Force ROTC in no way interferes with the pursuit of academic majors in other departments.

Air Force Commissions

Cadets successfully completing the requirements for a degree and the Air Force ROTC course of instruction are commissioned Second Lieutenants in the United States Air Force Reserve. All who are commissioned will then be called to active duty for a minimum period of four years. Veterans completing the course will not be required to serve these four years. Distinguished graduates of the program are offered a commission in the regular Air Force.

Emoluments

Advanced students (third and fourth year) are allowed a monetary allowance in lieu of rations which amounts to a total of approximately $548. This is in addition to uniforms, books and training equipment, all of which are furnished the students at government expense. For attendance at summer training unit students receive in addition approximately $85.00 plus travel expenses.

Draft Deferment

All advanced cadets are deferred from induction. Deferments from induction into the armed services for freshmen and sophomores are

given to individual enrollees who maintain satisfactory grade averages. Such deferred students are exempt from service in the armed forces while pursuing the Air Force ROTC program until graduation from the University.

Enrollment and Continuance Requirements

The general requirements for enrollment and continuance in the Air Force ROTC are that the student be a citizen of the United States, be physically qualified, be accepted by the institution as a regularly enrolled student, be under twenty-four years of age at the time of enrollment in the basic course, and that he successfully complete such general survey or screening tests as are given to determine eligibility for admittance to advanced courses. A student entering with advanced standing by reason of military service may enroll at an age which will enable him to complete all requirements for a commission before his twenty-eighth birthday. Credit may be allowed for six months or more of honorable service in the Air Force, Army, Navy, Marine Corps, or Coast Guard. These students (veterans) are required to enroll simultaneously with their matriculation at the University; the minimum requirement for a commission is the completion of the advanced course. Enrollees in the advanced course must agree to complete the course of instruction offered unless relieved by the Department of Air Science.

Advanced Course

The advanced course consists of two years of instruction and mandatory attendance at a summer training unit which will normally come between the junior and senior year. Summer training consists of a four-week period of intensive applicatory training in general and specialized Air Force fields. This training affords the cadet the opportunity to see the Air Force in operation. A student must have completed the basic course, or have had more than six months' honorable active service in the Air Force, Army, Navy, Marine Corps, or Coast Guard to be eligible for enrollment in the advanced course and must:

1. Not have reached twenty-six years of age at the time of initial advanced-course enrollment.
2. Be physically fit as evidenced by a physical examination.
3. Successfully accomplish an Officer Qualification Test.
4. Have at least four academic semesters to complete before graduation.
5. Be pursuing a normal four-year course with the intention of securing a degree.
6. Sign an agreement (contract) in writing to complete the course.
7. Be in good academic standing with the University.

Grading System

The status of each student in the Air Force ROTC is that of an officer candidate. Evaluation of his abilities is not based entirely on the grade he is awarded for classroom performance, oral or written, but includes his attitude and demonstrated ability as a leader.

The student's final grade is based on an evaluation of these combined factors.

Academic Credits

Cadets who successfully complete the Air Science courses are granted 16 semester hours credit. This credit may be substituted for four of the courses required for the degree as follows: two elective courses in the General College and two elective courses in the upper college and undergraduate schools. In addition cadets receive four courses credit by substituting Modern Civilization 1 or 2, Geography 153, and Political Science 86 in partial fulfillment of the requirements of Air Science 101-102, 201-202, and 401-402.

Cadets who do not successfully complete the four-year Air Force ROTC Program, the course credit earned for graduation will be reduced by one course.

Cadets are advised to consult their advisers and deans or department heads concerning appropriate substitutions.

Curriculum

Basic Courses

101 102 FOUNDATIONS OF AEROSPACE POWER (2). A general survey of air power designed to provide the student with an understanding of the elements of air power and basic aeronautical science. Purpose and provisions of the U. S. Air Force Officer Career Program. Basic military training. *Two laboratory hours a week, fall; two lecture and two laboratory hours a week, spring.* In addition each student must complete Modern Civilization 1 or 2, *fall.*

201 202 FUNDAMENTALS OF AEROSPACE WEAPON SYSTEMS (2). Warheads and delivery vehicles, astronautics. Moral and spiritual foundations for leadership. Weapon system development. United States Air Force operations. Cadet non-commissioned officer training. *Two lecture and two laboratory hours a week, fall; two laboratory hours a week, and an approved elective for Air Science credit, spring.*

Advanced Courses

301 302 AIR FORCE OFFICER DEVELOPMENT (4 each). The commander and his staff; problem solving; communication techniques; instructing; leadership and management; military justice system; summer training preparation; higher cadet non-commissioned officer training. *Four lecture and two laboratory hours a week, fall and spring.*

401 402 GLOBAL RELATIONS (2 each). Weather and navigation. *Two lecture and two laboratory hours a week, fall.* Commissioned Officer Training. *Two lecture and two laboratory hours a week, spring.* In addition each student must complete Political Geography 153, *fall,* and Political Science 86, *spring.*

Leadership Laboratory

All laboratory hours, throughout the course of instruction in both Basic and Advanced Air Science, are devoted to drill and exercise of command. This involves instruction and student participation in the following subjects: drill, military customs, courtesies, leadership, character development, esprit de corps, discipline, group action, morale, continuous training in command and staff functions, and other phases of officer responsibility.

DEPARTMENT OF ANATOMY[1]

Professors: C. W. HOOKER, *Chairman,* W. C. GEORGE,[2] A. P. HEUSNER, C. D. VAN CLEAVE
Visiting Professor: F. R. WEEDON
Associate Professors: C. T. KAYLOR, IRA FOWLER, J. N. ALLEN
Assistant Professors: G. R. HOLCOMB, W. S. POLLITZER
Clinical Assistant Professor: C. A. S. PHILLIPS
Instructors: RENÉE MENEGAZ-BOCK, D. L. MITCHELL

Courses for Undergraduates

41 INTRODUCTORY HUMAN ANATOMY (3). A general course to meet the needs of persons preparing for careers as dental hygienists. *Two lecture and two laboratory hours a week, fall semester.* Hooker.

53 INTRODUCTORY HUMAN ANATOMY AND PHYSIOLOGY (Physiology 53) (5). Offered jointly with the Department of Physiology. A general course for students in the School of Nursing. *Three lecture and three laboratory hours a week, spring semester.* Bock, Hooker, Ferguson.

91ab GROSS ANATOMY (11). For students of Physical Therapy. *Four lecture and eleven laboratory hours a week, fall and winter quarters.* Van Cleave, Kaylor, Pollitzer, Phillips, Singleton.

92 HISTOLOGY (2). Study of the fundamental tissues and of the microscopic anatomy of the cardiovascular system, lymphoid organs, bone marrow, and skin. For students of Physical Therapy. *Four lecture and eight laboratory hours a week for six weeks, fall quarter.* Heusner, Hooker, Weedon.

93 NEUROANATOMY (1½). An introductory study of the central nervous system. For students of Physical Therapy. *A total of six lectures and eighteen laboratory hours, spring quarter.* Hooker.

Courses for Graduates and Advanced Undergraduates

101 CENTRAL NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE (4⅔). *Four lecture and six laboratory hours a week, spring quarter.* Heusner, Hooker.

102 GENERAL HISTOLOGY AND ORGANOLOGY (5⅓). *Four lecture and eight laboratory hours a week, fall quarter.* Heusner, Hooker, Weedon.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.
2. Professor, Emeritus.

103 EMBRYOLOGY (2⅔). *Two lecture and four laboratory hours a week, spring quarter.* Fowler, Holcomb, Weedon.

104 CYTOLOGY AND HISTOGENESIS (4). Prerequisites, Anatomy 102, 103. *Three lecture and six laboratory hours a week, spring quarter.* George.

105ab ANATOMY (10). *Three lecture and nine laboratory hours a week, fall and winter quarters.* Holcomb, Bock.

106 HISTOLOGY AND ORGANOLOGY (6⅔). *Five lecture and ten laboratory hours a week, fall quarter.* Fowler, Mitchell.

107ab GROSS ANATOMY (12⅔). *Four lecture and eleven laboratory hours a week, fall and winter quarters.* Van Cleave, Kaylor, Pollitzer, Phillips.

112 PHYSICAL ANTHROPOLOGY (Anthropology 112) (3). *Three lecture hours a week, spring semester.* Holcomb, Pollitzer.

Courses for Graduates

201 COMPARATIVE HEMATOLOGY (4). *Time to be arranged.* George.

207 REGIONAL ANATOMY (2 or more). *Time to be arranged.* Staff.

310 RESEARCH (2 or more). Staff.

ANTHROPOLOGY
(See Sociology and Anthropology)

ARABIC
(See Romance Languages)

ARCHAEOLOGY
(See Classics)

DEPARTMENT OF ART

Professors: JOSEPH C. SLOANE, *Chairman,* KENNETH NESS, JOHN V. ALLCOTT, CLEMENS SOMMER
Associate Professors: ROBERT HOWARD, GEORGE KACHERGIS
Assistant Professors: JOHN M. SCHNORRENBERG, FRANCES HUEMER
Part-time Instructor: ROBERT BARNARD
Librarian and Curator of Prints: MAY DAVIS HILL
Graduate Assistants: ROBERT H. WILLIAMS, M. DWAYNE LOWDER
Student Assistants: JOHN S. COGSWELL, JOHN DAVID FARMER, CECIL M. GAYLE, NANCY ELIZABETH JOHNSTON, TIMOTHY MURRAY, LORA LOUISE SHARP, COLE WADDELL

Courses in art are for art majors and for general students in the University. Programs for art majors are planned to give a basic training in art history or creative art within the liberal arts program and also to lay the foundations for graduate work. Courses for general students provide an opportunity to study art for its value in the general field of humanistic studies. A new building, The William Hayes Ackland Memorial Art Center, opened in September 1958, provides

exhibition galleries, departmental library, offices, study areas, and classrooms. Other exhibitions and collections are displayed in the Morehead Building.

The Department of Art offers two major programs, one in Art History, the other in Creative Art, as well as elective courses open to students from all departments in the University. *Previous artistic training is not a prerequisite* for beginning work in the Department. Students desiring to prepare for art teaching careers should consult with the School of Education as well as the Department when planning their programs. (See "School of Education" in Part III.)

All students considering a major in art should obtain a copy of the special announcement of the Department which outlines the various courses of study in detail.

Art 33, 31, 44, and 46 are prerequisites to a major in either art history or studio. These courses should be taken from among the Sophomore Electives and are prerequisite to more advanced work. Transfer students must present equivalent credit or make up the deficiency.

A major in Art History requires six to eight courses beyond the General College level, or a total of ten to twelve courses in all. Two semester courses must be from among the advanced undergraduate courses.

A major in Creative Art (Studio) requires nine courses beyond the General College level including two courses in art history, one of which must be either Art 53 or 54. Students looking forward to professional work in art education, crafts, advertising, etc., will be allowed to stress such courses in arranging their programs.

(The Department reserves the privilege of keeping examples of the work of any student.)

ART HISTORY

Courses in the General College

The following two courses for general students are introductions to the history and interpretation of art, tracing architecture and painting throughout Western civilization. Each course may be taken separately and both are open to juniors and seniors as electives. *These courses are prerequisite to all other courses in their respective fields.*

31 HISTORY AND INTERPRETATION OF ARCHITECTURE (3). *Fall and spring.* Allcott, Huemer.

33 HISTORY AND INTERPRETATION OF PAINTING (3). *Fall and spring.* Allcott, Schnorrenberg, Huemer.

Courses in the College of Arts and Sciences

51 EARLY ITALIAN PAINTING (3). The art of the late thirteenth, fourteenth, and fifteenth centuries. *Fall.* Sommer, Huemer.

52 LATER ITALIAN PAINTING (3). The great masters of the later fifteenth and sixteenth centuries. *Spring.* Huemer.

53 NINETEENTH-CENTURY PAINTING (3). Developments in European painting from the French Revolution to Cézanne. *Fall.* Sloane.

54 TWENTIETH-CENTURY PAINTING (3). The main movements in modern art. *Spring.* Allcott.

71 AMERICAN ART (3). From Colonial times to the present. *Spring.* Allcott.

72 MODERN ARCHITECTURE (3). The important developments down to the present. Field trips. *Fall.* Allcott.

77 MEDIEVAL ART (3). The art of the Early Christian, Byzantine, Romanesque, and Gothic periods.
Fall. Schnorrenberg.

80 RENAISSANCE AND MODERN SCULPTURE (3). A survey of sculpture in Europe from the beginning of the Renaissance to modern times. *Spring.* Schnorrenberg.

Suggested courses in the Department of Classics: 85 ARCHAEOLOGY AND THE BIBLE; 91 ARCHAEOLOGY AND THE NEAR EAST; 92 GREEK ARCHAEOLOGY; 93 GREEK SCULPTURE; 95 ANCIENT ARCHITECTURE; 97 ROMAN ART; 193 HELLENIC ART.

Courses for Graduates and Advanced Undergraduates

151 FLORENTINE PAINTING (3). The development of painting in Florence from the late thirteenth century to the sixteenth century.

173 FOURTEENTH- AND FIFTEENTH-CENTURY PAINTING IN NORTHERN EUROPE (3). From early Flemish art through Brueghel. *Fall.* Schnorrenberg.

174 NORTHERN BAROQUE ART (3). The Baroque movement outside of Italy. *Spring.* Huemer.

175 ITALIAN BAROQUE ART (3). From its origins in the sixteenth century to the last phase in the eighteen century. *Fall.* Huemer.

177 ORIGINS OF EUROPEAN ENGRAVING AND WOODCUT (3). The origins of these techniques and their development, especially in Germany. *Spring.* Sommer.

181 MEDIEVAL ARCHITECTURE (3). Emphasis on the great structures of the Romanesque and Gothic periods. *Spring.* Schnorrenberg.

182 RENAISSANCE ARCHITECTURE (3). Developments from the fifteenth through the sixteenth century. *Fall.* Huemer.

Courses for Graduates

In the seminars listed, the topics for study change from year to year depending on the professor conducting the course. Architecture, sculpture, painting, or a combination of these, may be the subject. Consult the Department for details on specific courses in any given semester.

250abc SEMINAR IN MEDIEVAL ART (3 each). Schnorrenberg, Sommer.

251abc SEMINAR IN RENAISSANCE ART (3 each). Staff.

252abc SEMINAR IN BAROQUE ART (3 each). Sommer, Huemer.

253abc SEMINAR IN MODERN ART (3 each). *Fall,* Allcott; *spring,* Sloane.

290 THESIS COURSES (3). Staff.

301 RESEARCH. Staff.

CREATIVE ART

Courses in the General College

The first two courses listed below are recommended for the general student to give him an approach to art through work in the studio. Each course may be taken separately. All courses listed in this section are open as electives to juniors and seniors, and may be offered for credit in the College of Arts and Sciences. *Art 44 and 46, or their equivalent, are prerequisites to more advanced work in painting and sculpture.* Courses numbered 60 and above may, by permission of the Department, be taken more than once for credit.

44 BASIC DRAWING AND COMPOSITION (3). An introduction to the structural elements of a picture. *Six studio hours a week, fall and spring.* Kachergis, Ness.

46 BASIC SCULPTURE (3). An introduction to three-dimensional design in such materials as clay, plaster, wood, and wire. *Six studio hours a week, fall and spring. Laboratory fee, $16.00.* Howard.

45 (Formerly 65) ARTS AND CRAFTS (3). Sketching and painting; clay modeling and paper sculpture; block printing; textile designs. The planning of art projects with regard to local resources. *Six studio hours a week, fall and spring.* Barnard, Kachergis.

49 DESIGN (3). An introduction to studio methods in design with color, form and movement. *Six studio hours a week, fall and spring.* Ness, Kachergis.

Courses in the College of Arts and Sciences

61 (Formerly 85) ADVERTISING ART (3). Figurative and abstract illustration and design of posters, book jackets, and other graphic presentation. Fundamentals of lettering and layout. Open to students in advertising, journalism, and other fields. *Nine studio hours a week, fall.* Ness.

63 (Formerly 81) BEGINNING PAINTING (3). Prerequisite, Art 44. Representational and abstract composition. The pictorial unit from linear structure to three-dimensional form. *Nine studio hours a week, fall and spring.* Ness, Kachergis.

66 (Formerly 110) LIFE DRAWING (3). Prerequisite, Art 44 or permission of the instructor. Work from the living model in various media. Consideration of anatomy and composition. May be taken more than once for credit. *Six studio hours a week, fall and spring.* Howard, Ness.

77 MATERIALS AND METHODS FOR THE TEACHING OF ART (Education 77) (3). *Two lecture and six studio hours a week, first half of spring semester.* Barnard.

80 PRACTICE TEACHING OF ART (Education 80) (9). *Second half of spring semester.* Barnard.

82 INTERMEDIATE PAINTING (3). Prerequisite, Art 63 or equivalent. Still life, figure, landscape, and abstract painting in various media. *Nine studio hours a week, fall and spring.* Ness, Kachergis.

84 CERAMIC DESIGN (3). Approaches to form design; the function of decorative processes such as color slips, sgraffito and glazing; firing. *Nine studio hours a week, spring. Laboratory fee, $16.00.* Howard.

86 INTERMEDIATE SCULPTURE (3). Prerequisite, Art 46 or equivalent. Casting of plaster, cement, etc.; carving in wood, stone, etc. Emphasis on potential of solids in three-dimensional design. *Nine studio hours a week, fall and spring. Laboratory fee, $16.00.* Howard.

Courses for Graduates and Advanced Undergraduates

105 ADVANCED PAINTING (3). Prerequisites, Art 63, 82, or permission of the instructor. Various media; preparation of panels; consideration of line, tone and form. *Nine studio hours a week, fall and spring.* Kachergis, Ness.

108 ILLUSTRATION AND PICTORIAL COMPOSITION (3). Prerequisite, permission of the instructor. Special projects based on student's performance and capacity in other advanced courses. *Nine studio hours a week, by arrangement, fall and spring.* Ness, Kachergis, Howard.

112 ADVANCED SCULPTURE (3). Prerequisite, Art 86. Construction in various media, advanced three-dimensional design. *Nine studio hours a week, fall and spring. Laboratory fee, $20.00.* Howard.

120 GRAPHIC ART (3). Prerequisite, permission of the instructor. Technique and design in various media. *Nine studio hours a week, fall.* Kachergis.

Courses for Graduates

240 GRADUATE PAINTING (3 or 6). This course may be repeated for credit. *Nine or eighteen studio hours a week, fall and spring.* Kachergis, Ness.

241 GRADUATE SCULPTURE (3 or 6). This course may be repeated for credit. *Nine or eighteen studio hours a week, fall and spring. Laboratory fee, $30.00.* Howard.

290 THESIS COURSE (3). Staff.

ASTRONOMY
(See Physics)

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY[1]

Professors: D. A. MACPHERSON, *Chairman,* W. J. CROMARTIE, G. P. MANIRE
Professor of Biophysics in Bacteriology: D. GORDON SHARP
Associate Professors: W. R. STRAUGHN, JR., JOHN K. SPITZNAGEL, J. H. SCHWAB
Assistant Professors: A. WIDRA, H. GOODER
Instructors in Clinical Bacteriology: J. H. ARNOLD, J. J. FISHER, S. W. NYE
Instructors in Medical Technology (Bacteriology): C. U. MAUNEY, C. D. MERRITT, L. M. WARD

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.

Research Associates: SHU-SING CHENG, J. B. TAYLOR, J. J. CRAWFORD
Trainees: W. R. BIBB, W. A. CHAPPELL, G. J. GALASSO, I. L. GRAVES, J. G. BLOUNT, G. H. SPOONER, W. A. CLYDE, JR.
Graduate Assistants: L. R. ALBRECHT, H. I. ZEYA, K. S. KIM, D. A. THOMAS

Requirements for Bachelor of Science in Bacteriology

For freshman and sophomore years see "General College," Part III.

JUNIOR YEAR

Physics 24-25
Bacteriology 51
Chemistry 61, 64

[2]Electives, four courses

SENIOR YEAR

Bacteriology 112
Bacteriology 132
[2]Electives, three courses

Two of the following, of which one must be Bacteriology:
Bact. 104, 106, 115, 120
Chemistry 83
Mathematics 31, 32
Public Health 135, 232

Courses for Undergraduates

51 ELEMENTARY BACTERIOLOGY (4). Required for pharmacy students. Prerequisites, Chemistry 11-12 or 11-21. Covers the general principles and techniques of bacteriology and the relations of these organisms to sanitation, agriculture, medicine, and industry. *Two lecture and four laboratory hours a week, spring semester.* Schwab.

55 ELEMENTARY PATHOGENIC MICROBIOLOGY (5). Required for nursing students; other students by permission of the Department. Prerequisites, Chemistry 11-12 or 11-21. A course covering the fundamental principles of microbiology; the relation of microorganisms to disease; modes of infection; and the etiologic agents of the important infectious diseases. *Three lecture and four laboratory hours a week, fall semester.* Widra.

Courses for Graduates and Advanced Undergraduates

101ab PATHOGENIC BACTERIOLOGY (8⅔). Required for medical students; other students by permission of the Department. Prerequisite, Bacteriology 51 or equivalent. A detailed study of the important bacteria, fungi, rickettsiae and viruses producing human disease including the principles of immunology. *Three lecture, one conference, and six laboratory hours a week, fall quarter; three lecture and six laboratory hours a week, winter quarter. Both quarters must be taken consecutively to receive credit.* MacPherson; staff.

104 IMMUNOLOGY (4). Prerequisite, Bacteriology 101ab or 132. Emphasis is on quantitative immunochemistry and the chemical and physical methods used in this field. (1961-1962 and alternate years.) *Two lecture and four laboratory hours a week, spring semester.* Schwab.

106 MEDICAL MYCOLOGY (4). Prerequisites, Bacteriology 101ab, or 132, or equivalent; Botany 101 or 115 is advisable. A course covering the higher fungi pathogenic for man and the laboratory diagnosis of the human mycotic diseases. (1961-1962 and alternate years.) *Two lecture and four laboratory hours a week, fall semester.* Widra.

2. Four of the seven elective courses must be outside the Division of Natural Sciences.

112 BACTERIAL PHYSIOLOGY (6). Prerequisites, Bacteriology 51, Chemistry 61, 62, or 64; a course in biochemistry is desirable. This course is concerned with a study of the growth, metabolism, nutrition, enzyme reactions, and effects of physical and chemical agents on bacteria. *Three lecture and six laboratory hours a week, fall semester.* Straughn.

115 ADVANCED BACTERIOLOGY OR IMMUNOLOGY (3 or more each term). Prerequisites, Bacteriology 101ab, or 132, and permission of the Department. A course designed to introduce the student to research methods. *Hours, credit, and laboratory fee to be arranged, any term. May be continued for credit two or more semesters.* Staff.

120 VIROLOGY (4). Prerequisites, Bacteriology 101ab or 132. A course covering the nature of viruses and rickettsiae, with laboratory exercises emphasizing procedures for propagation and identification of these agents. (1962-1963 and alternate years.) *Two lecture and four laboratory hours a week, spring semester.* Manire.

132 PATHOGENIC BACTERIOLOGY (7). Required for dental students and medical technologists. Prerequisites, Chemistry 11-12 or 11-21; and two courses selected from botany, physics, or zoology. A course covering the common pathogenic microorganisms, and the principles of sterilization, disinfection, chemotherapeusis, and immunity. *Five lecture and six laboratory hours a week, fall quarter; remainder of semester three lecture and six laboratory hours.* MacPherson; staff.

151 GENERAL BACTERIOLOGY (4). Prerequisites, Chemistry 11-12 or 11-21, and Botany 11 or Zoology 11. Open only to majors in departments other than bacteriology. A general science course introducing the student to the entire scope of bacteriology. An individual project or literary review is required. *Two lecture and four laboratory hours a week, spring semester.* Schwab.

Course for Graduates

301 RESEARCH (5 or more each term). Prerequisite, permission of the Department. Opportunity is offered properly prepared students to undertake research in bacteriology, immunology, virology, or medical mycology. *Hours and credits to be arranged, throughout the year. May be continued for credit two or more semesters.* Staff.

DEPARTMENT OF BIOCHEMISTRY AND NUTRITION

Professors: J. L. IRVIN, *Chairman,* C. E. ANDERSON, J. C. ANDREWS,[1] L. G. WELT
Associate Professors: J. E. WILSON, B. BAGGETT, R. H. WAGNER
Assistant Professors: M. K. BERKUT, R. PENNIALL, F. E. BELL, E. GLASSMAN, C. MCCLURE
Instructors: D. J. HOLBROOK, G. H. SPOONER
Research Associates: B. MILLER, R. F. FISHER, E. KELLER
Research Assistants: J. E. SUGGS, A. G. ATHERLY, M. FROSOLONG, J. GRIFFIN, P. A. MOORE, B. ZAMBRANA, A. LU, M. LIANG, T. YEN, L. WAN, H. C. MCALLISTER, JR., W. CURRIE, F. INMAN
Predoctoral Fellows: L. R. GURLEY, H. C. SMITH, J. H. IM, P. SAVERANCE, E. COOLER

1. Professor, Emeritus.

Courses for Undergraduates

7 INTRODUCTION TO BIOCHEMISTRY (4). Open only to students of Dental Hygiene. *Three lecture hours a week, fall. Two 2-hour laboratory periods during the second half of the fall semester.* Breakage deposit required. Berkut; assistant.

8 INTRODUCTION TO BIOCHEMISTRY (4). Open only to students of Dental Hygiene. *Three lecture hours and one 2-hour laboratory period a week, spring.* Breakage deposit required. Berkut; assistant.

21 INTRODUCTION TO NUTRITION (3). Prerequisites, Biochemistry 7 and 8. Open only to students of Dental Hygiene. *Two lecture hours a week, fall.* Berkut.

Courses for Graduates and Advanced Undergraduates

101a GENERAL BIOCHEMISTRY (3). Prerequisites, Chemistry 43, 61, and 64, or equivalent. *Three lecture hours a week, fall semester until the Christmas holidays.* Staff.

101b GENERAL BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry 101a. The laboratory course given in conjunction with Biochemistry 101a. *Six laboratory hours a week, fall.* Staff.

103a BIOCHEMISTRY (3). Prerequisites, Chemistry 43, 61, and 64, or equivalent. *Three lecture hours a week, fall.* Staff.

103b BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry, 103a. The laboratory course given in conjunction with Biochemistry 103a. *Six laboratory hours a week, fall.* Staff.

104a BIOCHEMISTRY (3). Prerequisite, Biochemistry 103a or equivalent. *Three lecture hours a week, spring.* Staff.

104b BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry 104a. The laboratory course given in conjunction with Biochemistry 104a. *Six laboratory hours a week, spring.* Staff.

191 NUTRITION (2). Prerequisite, Biochemistry 101 or equivalent. A general survey of nutrition for students of dentistry. *Two lecture hours a week, fall.* Berkut, Spooner.

Courses for Graduates

201 ENZYMES (5). Prerequisites, Biochemistry 103 and 104 or equivalent. (1961-1962 and alternate years.) *Three lecture and four laboratory hours a week, fall.* Staff.

202 VITAMINS AND HORMONES (5). Prerequisites, Biochemistry 103 and 104 or equivalent. (1962-1963 and alternate years.) *Five lecture hours a week, spring.* Staff.

203 INTERMEDIARY METABOLISM (5). Prerequisites, Biochemistry 103 and 104 or equivalent. (1962-1963 and alternate years.) *Five lecture hours a week, fall.* Staff.

204 BIOCHEMICAL PREPARATIONS (5). Prerequisites, Biochemistry 103 and 104 or equivalent. *Ten laboratory hours a week, either semester.* Staff.

211 SEMINAR (1 each). Prerequisites, Biochemistry 103 and 104, or equivalent,
212 and reading knowledge of German. *One hour a week throughout both semesters.* Penniall, Bell.

220 BIOCHEMISTRY OF GENETICS (5). Prerequisites, 103, 104, or permission of the instructor. An elementary course in genetics is recommended. (1961-1962 and alternate years.) *Five lecture hours a week, spring.* Glassman.

251 SEMINAR IN GENETICS (2). Prerequisites, Biochemistry 220 or Zoology
252 111, or permission of the instructor. Joint course with Zoology. May be repeated for credit. (1962-1963 and alternate years.) *Two lecture hours a week, fall and spring.* Glassman.

301 RESEARCH IN BIOCHEMISTRY (6 or more each). *Equivalent of twelve*
302 *or more hours a week throughout both semesters.* Staff.

DEPARTMENT OF BOTANY

Professors: V. A. GREULACH, *Chairman,* J. N. COUCH,[1] H. R. TOTTEN, J. E. ADAMS, A. E. RADFORD
Associate Professors: C. R. BELL, W. J. KOCH
Assistant Professor: M. H. HOMMERSAND
Instructor: C. J. UMPHLETT
Director of Herbarium: A. E. RADFORD
Curator of Herbarium: H. E. AHLES
Director of Coker Arboretum: C. R. BELL
Teaching Fellow: J. R. BAIRD
Research Associates: ANNE WHITLOCK NIELSEN, MARION SEILER
Research Adjunct: MIRIAM K. SLIFKIN
Research Assistant: P. E. BOSTICK
Graduate Assistants: R. AUITO, P. C. BAKER, H. A. BOND, J. R. BOZEMAN, BONNIE CARSWELL, P. J. CRUTCHFIELD, ALICE HAMMOND, JUDY MORGAN, ANNA MUELLER, SABINA MUELLER, D. B. PLYER, W. A. SHERWOOD, P. J. SZANISZLO, SANDRA TAYLOR, ZARELDA WALSTON

For the A.B. with major in botany the following courses are required: Botany 11, 101, 102, 103, 104, and two additional courses in botany. Also required are Zoology 11 and one other course in zoology; one year of chemistry (preferably more); and either Physics 24-25 or Geology 41-42 (preferably both). Six courses in departments outside of the Division of Natural Sciences are required.

Those students who plan to teach in public high schools should read the instructions under the "School of Education," in Part III.

Courses for Undergraduates

11 (Formerly 1, 41) GENERAL BOTANY (4). Open to all undergraduates regardless of their major field of interest. Prerequisite to all other courses in botany. Scientific study of the structure, life processes, reproduction, and heredity of plants. Also considered are the major groups of plants, plant classification, and the environmental relations and biological and economic significance of plants. *Three lecture and three laboratory hours a week, fall or spring and summer sessions.* Staff.

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1. Kenan Professor.

44 ECONOMIC BOTANY (3). Prerequisite, Botany 11. Sophomore elective. May also be taken as a nondivisional elective in the College of Arts and Sciences or a free elective in the School of Business Administration. A survey of the uses and economic aspects of plants and plant products in our present day society, including horticultural, agricultural, and forest plants and the uses of plant materials in industry. *Three lecture hours a week, spring.* Bell.

99 SENIOR THESIS (4). Prerequisite, permission of the staff. Individual reading, study and research and preparation of an acceptable thesis. Required of all candidates for honors in their senior year. *Each semester.* Staff.

Courses for Graduates and Advanced Undergraduates

Courses 101 through 104 may be applied toward the following degrees: A.B., B.S. in Science Teaching, M.S. in Science Teaching, and M.Ed. in Science Teaching. They do not apply toward a botany major for the M.A. and Ph.D. degrees, though by special permission they may be used toward a minor in botany. Courses 114 through 161 may be applied toward any of the degrees listed above.

The stated prerequisites should be interpreted to read "or equivalent" and may be waived by the instructor for students apparently qualified to do the work of that course.

101 FUNGI, ALGAE, AND BRYOPHYTES (4). Prerequisite, Botany 11. Not open to students with credit for Botany 42. An introduction to the biology of bacteria, fungi, lichens, algae, liverworts, and mosses with emphasis on their structure, development, and evolution. The laboratory will also deal with their culture, collection, identification, and preservation. *Two lecture and four laboratory hours a week, fall.* Couch or Koch.

102 STRUCTURE OF SEED PLANTS (4). Prerequisite, Botany 11. A detailed study of the organs, tissues, and cells of vascular plants, with emphasis on the seed plants. *Two lecture and four laboratory hours a week, fall.* Adams or Totten.

103 FIELD BOTANY (4). Prerequisite, Botany 11. Not open to students with credit for Botany 43. An introduction to the taxonomy and ecology of vascular plants. Lectures, laboratory, and field work on plant identification and classification, collection and mounting of specimens, and plant communities. The student will become acquainted with over 100 species of native plants. *Two lecture and four laboratory hours a week, spring.* Totten, Bell, or Radford.

104 PLANT DYNAMICS (4). Prerequisites, Botany 11, general chemistry. Not open to students with credit for 108 or 110. A study of important basic principles and concepts in the areas of plant physiology, physiological ecology, and plant genetics. Topics covered include photosynthesis, respiration, and other metabolic processes; mineral nutrition; water relations, plant growth and development; and physiological genetics. *Three lecture and three laboratory hours a week, spring.* Greulach, Hommersand, or Koch.

114 ALGAE (4). Prerequisite, Botany 101. Morphology, taxonomy, and ecology of fresh water and marine algae. *Two lecture and four laboratory hours a week, spring.* Hommersand.

115 FUNGI (4). Prerequisite, Botany 101. A survey of the fungal groups, including the true fungi, myxomycetes, and lichens. *Two lecture and four laboratory hours a week, fall.* Koch or Couch.

121 PLANT PHYSIOLOGY (4). Prerequisites, Botany 104 and organic chemistry. A general introductory study of the life processes of plants, including water relations, mineral metabolism, photosynthesis, foods, digestion, respiration, assimilation, and growth. *Three lecture and three laboratory hours a week, fall.* Greulach.

131 TAXONOMY OF VASCULAR PLANTS (4). Prerequisite, Botany 103. *Two lecture and four laboratory hours a week, spring.* Radford or Bell.

135 DENDROLOGY (6). Prerequisite, Botany 103. A taxonomic study of the native and introduced woody plants, based largely on leaf, bark, and fruit characteristics. *Seven and one half lecture and fifteen laboratory or field hours a week, second summer session, 1961 and alternate years.* Totten.

141 PLANT ECOLOGY (6). Prerequisite, Botany 103. Study of ecological principles and problems primarily in relation to vegetation and habitats of North Carolina. *Two lecture and eight laboratory hours a week, fall, 1961 and alternate years.* Radford.

151 COMPARATIVE MORPHOLOGY OF VASCULAR PLANTS (4). Prerequisite, Botany 102. Detailed study of selected vascular plants to portray the evolutionary development of the group. *Two lecture and four laboratory hours a week, spring.* Adams.

152 PLANT ANATOMY (4). Prerequisite, Botany 102. Introduction to the developmental and comparative anatomy of vascular plants. Practice in methods of anatomical microtechnique. *Two lecture and four laboratory hours a week, fall, 1962 and alternate years.* Adams.

161 CYTOLOGY (4). Prerequisite, Botany 102 or 104. The study of the structure and function of plant and animal cells. *Two lecture and four laboratory hours a week, fall, 1962 and alternate years.* Bell.

Courses for Graduates

211 ADVANCED MYCOLOGY: PHYCOMYCETES, ASCOMYCETES, BASIDI-
212 OMYCETES, AND FUNGI IMPERFECTI (5 each). Prerequisites, Botany 101, 115 or equivalent. Botany 211, Myxomycetes, Phycomycetes, Ascomycetes; Botany 212, Basidiomycetes and Fungi Imperfecti. *Two lecture and six laboratory hours a week, 212, fall; 211, spring.* Couch.

223 PLANT GROWTH (4). Prerequisite, Botany 121. Dynamics of plant growth, plant growth substances, influence of environment on growth, germination and dormancy, plant movements. *Two lecture and four laboratory hours, spring, 1962 and alternate years.* Greulach.

224 PHYSIOLOGY OF THE FUNGI (2 or 4). Prerequisites, Botany 115, 121. A study of the life process of fungi with particular emphasis on those aspects which differ most from the physiology of green plants. Nutrition, respiration and fermentation, synthetic processes, and the effects of environmental factors on growth and sporulation are stressed. *Two lecture and report hours a week, spring, 1963 and alternate years. Four laboratory hours a week are optional.* Koch.

225 RADIOISOTOPE TRACER TECHNIQUES (4). Prerequisite, Botany 121, or Zoology 120, or equivalent. The application of isotopic methods along with other biochemical techniques to the study of cellular physiology. *One lecture and seven laboratory hours a week, fall, 1962 and alternate years.* Hommersand.

226 PHOTOBIOLOGY OF THE LOWER PLANTS (2 or 5). Prerequisites, Botany 121, Zoology 120, or equivalent. Photosynthesis, phototaxis, phototropism and endogenous rhythms in algae, fungi, flagellates, and bacteria. The laboratory covers chromatographic, spectrophotometric, polarographic and manometric methods for the study of light responses in lower organisms. The lecture may be taken separately from the laboratory. *Two lecture and six laboratory hours a week, fall, 1961 and alternate years.* Hommersand.

231 ADVANCED TAXONOMY (4). Prerequisite, Botany 131. Field and laboratory studies of the fall flora and structural studies of selected families. *Two lecture and four laboratory hours a week, fall, 1962 and alternate years.* Radford.

232 VARIATION AND EVOLUTION IN PLANTS (5). Prerequisite, Botany 101. Study of the processes and mechanisms of natural variation and evolution and of the taxonomic, geographic, and economic aspects of plant variation. *Three lecture and four laboratory hours a week, fall, 1961 and alternate years.* Bell.

233 PHYLOGENY AND CLASSIFICATION OF FLOWERING PLANTS (3). Prerequisite, Botany 131. Comparative study of modern systems of classification based upon morphological and phylogenetic considerations. *Three lecture or report hours a week, fall, 1961 and alternate years.* Adams.

SPECIAL TOPICS IN BOTANY (2 to 6). Prerequisite, permission of the instructor. Directed reading in selected areas of botany. Laboratory practice in related research methods may be included. *Individually supervised work, hours per week and credit to be arranged, each semester.* Staff, as follows: 311, Couch or Koch (Mycology); 312, Hommersand (Algology); 321, Greulach (Physiology); 322, Hommersand (Physiology); 331, Totten, Adams, Radford, or Bell (Taxonomy); 341, Radford (Ecology); 342, Adams (Plant Geography); 351, Adams (Morphology and Anatomy); 361, Bell (Cytology and Cytogenetics).

RESEARCH IN BOTANY (2 or more). Prerequisite, permission of the instructor. *Each semester.* Staff, as follows: 300, Hommersand (Algology); 310, Couch or Koch (Mycology); 320, Greulach or Hommersand (Physiology); 330, Totten, Adams, Radford or Bell (Taxonomy); 340, Adams or Radford (Ecology and Plant Geography); 350, Adams (Anatomy and Morphology); 360, Bell (Cytology and Cytogenetics).

380 MASTER'S THESIS (2 to 6). Prerequisite, permission of the staff. *Each semester.* Staff.

390 DOCTORAL DISSERTATION (2 to 6). Prerequisite, permission of the staff. *Each semester.* Staff.

SCHOOL OF BUSINESS ADMINISTRATION

Professors: M. W. LEE, *Dean*, E. E. PEACOCK, G. T. SCHWENNING, R. J. M. HOBBS,[1] R. P. CALHOON, C. H. MCGREGOR,[2] J. E. DYKSTRA, C. S. LOGSDON, W. J. GRAHAM, C. A. KIRKPATRICK, J. C. D. BLAINE, G. A. BARRETT, C. C. CARTER, A. M. WHITEHILL, JR.,[3] W. A. TERRILL, C. S. GEORGE, C. H. KREPS,[4] H. Q. LANGENDERFER,[5] A. B. COHAN,[6] D. A. WOOD

Associate Professors: J. S. FLOYD, JR., I. N. REYNOLDS

Assistant Professors: J. B. FLYNN, R. I. LEVIN, T. H. JERDEE, R. L. DAVIS

Lecturers: F. J. SCHWENTKER,[7] A. G. SADLER, W. S. STEWART, H. A. LATANÉ, R. TILLMAN, J. D. EDWARDS, R. W. HOLSTEN, J. M. WRIGHT

Lecturer in Residence: S. F. WOODELL

Part-time Instructors: F. N. MILLETT, E. M. SCHWARTZ, J. E. THORNTON, MARY MCCALL, J. DEVOGT, J. A. HASLEM, W. F. HARDIN, R. B. MCBURNEY,[7a] R. H. SIMPSON, N. LEHRMAN, T. C. TAYLOR

SCHOOL OF BUSINESS ADMINISTRATION

The several curricula which lead to the degree of Bachelor of Science in Business Administration are described in detail in a separate bulletin of the School of Business Administration, which may be obtained by addressing a request to the Dean. Students in other schools and colleges wishing to take Business Administration courses for credit should consult their deans.

Courses for Undergraduates

NOTE: Economics 31-32 or equivalent, are prerequisite to all courses in Business Administration, except as otherwise indicated. Economics 61 with a grade of *C* or better may, under certain circumstances, be substituted for Economics 31-32.

71 ACCOUNTING PRINCIPLES I (3). Corequisite (or prerequisite), Economics 31-32 or equivalent. Fundamental accounting principles applied to operations of single proprietorships, partnerships, and corporations. *Fall and spring.* Staff.

72 ACCOUNTING PRINCIPLES II (3). Prerequisite, Business Administration 71 or equivalent. Study of accounting theory and types of internal and external uses of accounting data; valuation of assets and liabilities and determination of income; analysis of financial statements. *Fall and spring.* Staff.

91 BUSINESS LAW (3). *Fall and spring.* Carter, Stewart.

98 HONORS COURSE (3). Reading and preparation of an essay under the direction of a member of the faculty. *Fall.*

99 HONORS COURSE (3). Reading and preparation of an essay under the direction of a member of the faculty. *Spring.*

1. Professor, Emeritus.
2. Burlington Industries Professor of Business Administration.
3. Reynolds Professor of Human Relations in Industry.
4. Wachovia Professor of Banking.
5. Absent on leave, 1961-1962.
6. Drexel Research Professor (1961-1962).
7. Julian Price Lecturer in Life Insurance.
7a. Resigned October 16, 1961.

Courses for Graduates and Advanced Undergraduates

103 INTRODUCTION TO LINEAR ECONOMICS (Economics 103) (3). Prerequisite, senior standing. Topics in finite mathematics. Elementary application in linear programming and game theory. *Fall.* Ashby.

110 REAL ESTATE (3). Introduction to: the economic utilization of land; the real estate market; factors influencing values; legal relationships; financing; the impact of government. *Fall and spring.* Flynn.

120 GENERAL INSURANCE (3). Fundamental principles of insurance; their application to life, property, casualty, and social insurance. *Fall and spring.* Schwentker, Thornton.

121 LIFE INSURANCE (3). Basic life insurance principles and practices; includes functions, types of contracts, premium and reserve calculations; legal aspects, settlement options and programming; risk selection, company organization and management. *Fall.* Schwentker.

122 PROPERTY INSURANCE (3). A study of the more important types of property coverages, including fire, marine, and inland marine insurance. Includes hazards, policy types, rate determination, company organization, financial analysis, and legal background. *Spring.* Schwentker.

123 CASUALTY INSURANCE (3). The social, economic, and legal bases for workmen's compensation, automobile, accident and health, burglary, fidelity, surety, and other casualty insurances. Includes rate-making, contract analysis, types of companies, and state regulation. *Fall.* Schwentker.

124 ADVANCED LIFE INSURANCE (3). Prerequisite, Business Administration 121 or equivalent. An introduction to the specialized life insurance services, such as advanced programming, Social Security benefits, wills, trusts, taxation, estate planning and business life insurance. *Spring.* Schwentker.

125 ADVANCED PROPERTY AND CASUALTY INSURANCE (3). Prerequisites, Business Administration 122 and 123 or equivalents. A study of multiple line insurance, advanced rate-making, financial statements, investments and reserves, insurance statistics, reinsurance, loss adjustment, insurance surveys and governmental regulation. *Spring.* Schwentker.

130 PRINCIPLES OF INDUSTRIAL MANAGEMENT (3). A survey of the basic principles and control practices of management. *Fall and spring.* Dykstra, George, Levin, DeVogt.

131 INDUSTRIAL MANAGEMENT: THEORIES AND PRACTICES (3). Prerequisite, Business Administration 130 or equivalent. A case analysis course involving managerial decision making. *Fall and spring.* Dykstra, George, Levin.

133 MOTION AND TIME STUDY (3). Prerequisite, Business Administration 130 or equivalent. Open to seniors and graduate students only. The principles and techniques of modern motion and time study. *Laboratory, six hours; fall and spring.* Dykstra, George, Levin.

135 QUALITY CONTROL BY STATISTICAL METHODS (Economics 173) (3). Prerequisite, Economics 70 or equivalent. Control charts: variables; defects; defectives. Operating characteristic. Tolerance limits. Single; double; multiple, and sequential sampling. Producer's and consumer's risk. AOQL. (1961-1962 and alternate years.) *Spring.* Cowden.

137 INDUSTRIAL MANAGEMENT CONTROLS (3). Prerequisite, Business Administration 130 or equivalent. Production, cost, quality, budgetary, and management control. *Spring.* George, Levin.

141 INDUSTRIAL TRAFFIC MANAGEMENT (3). The organization and management of the transporation activities of industrial establishments. *Fall and spring.* Blaine.

142 CARRIER MANAGEMENT AND OPERATION (3). Analysis of carrier traffic operations based primarily on selected problems and case studies. *Spring.* Blaine.

150 PERSONNEL RELATIONS (3). The human phase of organization, personnel efficiency, handling personnel situations, developing work teams, labor relations, and administration of other matters affecting the personnel of an organization. *Fall and spring.* Calhoon, Whitehill, Jerdee.

153 LABORATORY ANALYSIS IN PERSONNEL PSYCHOLOGY (Psychology 181) (3). Prerequisites, Psychology 135, or Business Administration 150, or equivalent, and a course in statistics. A laboratory course in personnel techniques as applied practically to job analysis, constructing application blanks, rating scales, etc. *One lecture and four laboratory hours, spring.* Wood.

155 WAGE AND SALARY ADMINISTRATION (3). Prerequisite, Business Administration 150 or equivalent. Wage and salary level determination, wage and salary structures, job evaluation, wage incentives, individual wage determination, fringe wages, controls. *Fall.* Whitehill.

158 PERSONNEL DEVELOPMENT (3). Prerequisite, Business Administration 150 or equivalent. Analysis of problems in developing skills and attitudes of employees and managers. Studies methods used in development: communications, training, evaluation. Considers administration in terms of both individual and group development. *Fall.* Calhoon, Jerdee.

159 PERSONNEL SELECTION AND COUNSELING (3). Prerequisite, Business Administration 150 or equivalent. Factors in effective interviewing and counseling of employees. Major emphasis on various types of management interviews. *Spring.* Calhoon, Jerdee.

160 PRINCIPLES OF MARKETING (3). Marketing organization and methods with emphasis on the social and economic aspects of distribution. Consumer problems, marketing functions and institutions, marketing methods and policies. *Fall and spring.* Logsdon, Kirkpatrick, Tillman, McGregor.

161 ADVERTISING (3). Prerequisite, Business Administration 160 or equivalent. The organization and functions of advertising from the point of view of the business executive. Topics include economic and social aspects; types of advertising and purposes; media types, selection and evaluation; advertising research. *Fall and spring.* Kirkpatrick.

162 SALESMANSHIP AND SALES PROMOTION (3). Prerequisite, Business Administration 160 or equivalent. Principles of effective selling; professional aspects of personal selling; qualifications and obligations of salesmen; program planning and administration; interdepartmental coordination of promotion efforts. *Fall and spring.* Kirkpatrick, Tillman.

163 ADVERTISING PROBLEMS (3). Prerequisite, Business Administration 161 or graduate standing. An analysis of advertising problems confronting management. Case studies emphasize the fitting of advertising into the marketing program, its control and coordination, and the evaluation of advertising results. (Not offered in 1962-1963.) *Spring.* Kirkpatrick.

165 RETAILING (3). Prerequisite, Business Administration 160 or equivalent. A study of the place of retailing in the economy. Topics include development of the present retail structure, functions performed, principles governing effective operations, modern store policies and practices, and managerial problems posed by social and economic trends. *Fall and spring.* McGregor.

166 RETAIL MANAGEMENT PROBLEMS (3). Prerequisite, Business Administration 165 or graduate standing. Analysis of the more important planning and control problems of retail managements, with emphasis placed upon budgeting, cost control, operational analysis and evaluation, and retail research. (Not offered in 1962-1963.) *Spring.* McGregor.

167 SALES MANAGEMENT (3). Prerequisite, Business Administration 160 or equivalent. The planning, organization, and control of sales operations. Emphasis is placed upon the sales manager's functions and problems in manufacturing, wholesaling, and service establishments. *Fall and spring.* Logsdon, Tillman.

168 INTRODUCTION TO MARKETING RESEARCH (3). Prerequisite, Business Administration 160 or equivalent. An introduction to research methodology with emphasis upon the compilation, analysis and interpretation of data used in the planning and control of marketing operations. *Fall and spring.* McGregor, Tillman.

169 MARKETING POLICIES (3). Prerequisites, Business Administration 160, or equivalent, and senior standing. A problems method course dealing with specialized marketing functions and policies; includes product and line, brands, channels of distribution, prices and pricing, sales promotion, and operating diagnosis and control. *Fall and spring.* Logsdon, Kirkpatrick.

170 ACCOUNTING PRINCIPLES III (3). Prerequisite, Business Administration 72 or equivalent. Application of accounting principles to income determination and valuation. Includes statement classification and analysis, correction of profit of prior years, and a review of accounting records and closing procedures. *Fall and spring.* Reynolds.

171 ACCOUNTING FOR BRANCHES, COMBINATIONS, AND AFFILIATED COMPANIES (2). Prerequisite, Business Administration 170 or equivalent. Home office and branch accounting, preparation and interpretation of consolidated balance sheet and profit and loss statements, mergers, and divisional statements. *Fall and spring.* Terrill.

172 ADVANCED ACCOUNTING (2). Prerequisite, Business Administration 170 or equivalent. A study of statement of affairs, receiver's accounts, realization and liquidation reports, partnership changes and dissolution, accounting applications of compound interest and annuities, estates, and trusts. *Fall and spring.* Reynolds, Edwards.

173 COST ACCOUNTING (3). Prerequisite, Business Administration 72 or equivalent. Study of cost systems, including process, job order, and standard costs. Managerial use of information is stressed. *Recitation, two hours; laboratory, two hours; fall and spring.* Terrill.

174 ACCOUNTING THEORY (3). Prerequisite, senior standing. Critical examination and analysis of accounting principles with emphasis on determination of cost and income, valuation and statement presentation. Study of current problems presented in accounting literature and business cases. *Spring.* Graham.

175 AUDITING (3). Prerequisite, Business Administration 72 or equivalent. A course in auditing theory and practice. Auditing standards, procedures, rules of professional conduct, and related materials of professional importance are studied. *Fall and spring.* Edwards.

177A FEDERAL AND STATE INCOME TAXATION FOR INDIVIDUALS (3). Prerequisite, senior standing. Federal and state income tax laws and their application to tax situations for individuals. Lectures supplemented by laboratory problems and exercises. *Fall and spring.* Langenderfer, Wright.

177B FEDERAL AND STATE TAXATION (3). Prerequisite, Business Administration 177A or equivalent. Federal and state income tax laws, their application to tax situations for partnerships and corporations, corporate reorganizations, personal holding companies, estates, trusts; estate, gift, and inheritance taxes. Lectures, laboratory problems, and exercises. *Spring.* Langenderfer, Wright.

178 CERTIFIED PUBLIC ACCOUNTING PROBLEMS (3). Prerequisites, major in accounting and permission of the instructor. A review of the general and specialized accounting problems which constitute the subject matter of C.P.A. examinations. *Spring.* Staff.

179 GOVERNMENTAL ACCOUNTING (3). Prerequisite, Business Administration 72 or equivalent. Theory and procedures for fund accounting in local government units. *Spring.* Reynolds.

180 BUSINESS FINANCE (3). Prerequisite, Business Administration 71 or equivalent. Principles and practices of business financing, with particular attention to corporations. Methods of raising permanent capital, the securities markets, and problems of current financing. *Fall and spring.* Floyd, Flynn, Cohan.

182 PROBLEMS IN BUSINESS FINANCE (3). Prerequisite, Business Administration 180. Selected problems of business finance, including those arising from promotion, expansion, combination, and bankruptcy. *Fall and spring.* Cohan.

185 COMMERCIAL BANKING (3). Prerequisite, Economics 81 or equivalent. Case studies and selected readings in commercial bank management. The management of lending; management of liquidity reserves; investment portfolio problems; problems of competition, capital and earnings, and other bank operating problems. *Fall and spring.* Kreps.

186 INVESTMENTS (3). Prerequisite, Business Administration 180 or equivalent. Security analysis and investment-portfolio management, with special attention to the problems of the individual investor. *Fall and spring.* Floyd.

193 INDUSTRIES OF THE UNITED STATES (3). Prerequisite, junior standing. An analysis of the structure, development, and competitive status of selected industries. Emphasis is placed on the technology of these industries and the principal problems of their management. *Spring.* Mouzon.

194 CREDIT TRANSACTIONS AND SALES (3). Prerequisite, Business Administration 91 or equivalent. The law of negotiable instruments and the legal principles governing sales, including conditional sales and security transactions, are covered. *Fall and spring.* Carter, Stewart.

195 LAW OF TRADE (3). Prerequisite, Business Administration 91 or equivalent. This course considers the law affecting the conduct of trade and industry; nature and scope of competition at common law, and legislative attempts to fix the boundaries of permissible competition. *Fall and spring.* Barrett.

196 HUMAN RELATIONS IN BUSINESS (3). Case studies and supplementary readings are used to develop skill in (1) recognition and analysis of problems in human interaction, and (2) formulation and communication of positive plans for responsible administrative action. *Spring.* Whitehill, Calhoon.

197 FUNDAMENTALS OF MANAGERIAL ORGANIZATION (3). Prerequisite, senior standing. A detailed analysis of the basic problems of organizing manpower. *Fall and spring.* George.

198 SURVEY OF OPERATIONS RESEARCH (3). Prerequisite, senior standing. The team approach to research problems of interest to management. The application of operations research methods to scheduling problems in inventory and production control. Problems of replacement and location of fixed assets. *Fall.* Pfouts, Levin.

199A MANAGEMENT SIMULATION (3). Prerequisite, permission of the instructor. A seminar in the application of managerial principles to the operation of a complex industrial enterprise utilizing the Univac 1105 Computer. *Fall.* Staff.

199B MANAGEMENT SIMULATION (3). Prerequisite, permission of the instructor. A seminar in the application of managerial principles to the operation of a complex industrial enterprise utilizing the Univac 1105 Computer. *Spring.* Staff.

Courses for Graduates

203 LINEAR PROGRAMMING (Economics 203) (3). Prerequisite, Economics (Business Administration) 103 or equivalent. Topics in linear programming and game theory. (1961-1962 and alternate years.) *Fall.* Ashby.

206 QUANTITATIVE DECISION METHODS (3). Prerequisite, Business Administration 198 or equivalent. Generalized models for making choices are developed and analyzed through the use of payout matrices. *Spring.* Latané.

207 HISTORY OF MANAGEMENT THOUGHT (3). A comparative study and evaluation of the development of management thought. *Spring.* George.

231 PROBLEMS IN INDUSTRIAL MANAGEMENT POLICIES (3). Prerequisite, Business Administration 130 or equivalent. The development of sound manufacturing policies through critical analysis. *Fall.* Dykstra, George.

241 TRAFFIC ADMINISTRATION (3). A study of the administrative policies of a traffic department as an integral part of the over-all administrative policies of an organization. *Spring.* Blaine.

250 PERSONNEL ADMINISTRATION (3). Prerequisite, Business Administration 150 or equivalent. A study of the factors contributing to the building and maintenance of an effective work force. Analysis of problems by case study. *Spring.* Calhoon, Whitehill.

260 MARKETING MANAGEMENT (3). Prerequisite, Business Administration 160 or equivalent. A course in the planning and control of marketing operations. Includes forecasting and planning, modern control techniques and practices, and appraisal of distribution costs and their control. *Fall and spring.* McGregor, Logsdon.

268 MARKETING RESEARCH (3). Prerequisites, Business Administration 160 and Economics 70 or equivalents. A course covering research methodology with emphasis on the application of scientific techniques to marketing problems. Critical evaluation of information sources, research procedures, and utilization of research findings. *Spring.* McGregor.

273 MANAGEMENT ACCOUNTING THEORY (3). Prerequisite, Business Administration 173 or equivalent. Study of the basic concepts, methods and controversial problems involved in the use of accounting and other quantitative tools in aiding management to plan, coordinate, control operations and appraise results. *Spring.* Terrill.

274 ACCOUNTING SYSTEMS (3). Prerequisite, Business Administration 172 and 173 or equivalents. The design and installation of accounting systems for textile and furniture manufacturing firms, banks, and public utilities. (Not offered in 1962-1963.) *Recitation, two hours; laboratory, two hours; spring.* Staff.

276 ADVANCED ACCOUNTING THEORY (3). Critical examination of accounting concepts and standards. Emphasis on income determination, particularly controversial issues. Studies of current problems and contemporary development reflected in research bulletins, monographs, journals, textbooks, and reports. *Spring.* Graham.

280 FINANCIAL POLICIES (3). Prerequisite, Business Administration 180 or equivalent. An analysis through the use of actual cases of the practices used by businesses to solve financial problems. *Fall and spring.* Cohan.

285 BANKING POLICIES AND PROBLEMS (3). Prerequisite, Economics 81 or equivalent. The management of financial institutions, especially commercial banks. *Fall.* Kreps.

286 INVESTMENT POLICIES (3). Prerequisite, Business Administration 180 or equivalent. Case studies of portfolio problems of insurance companies, pension and other trust funds, mutual funds, and investment companies. The management of cash and marketable-securities accounts of nonfinancial companies is also considered. *Spring.* Floyd.

290 MANAGEMENT ECONOMICS (3). Concepts and methods of economic analysis are applied to problems of policy and operations facing the business executives. Emphasis is placed on conditions outside the business. *Fall and spring.* Winslow, Pfouts.

291 MANAGERIAL INTERPRETATION OF ACCOUNTING INFORMATION (3). An analysis of management's use of cost and other quantitative data in managerial planning and control. *Fall.* Graham.

292 LABOR-MANAGEMENT RELATIONS (Economics 292) (3). An advanced study of the procedure, subject matter and legal framework of collective bargaining. *Spring.* Staff.

296 HUMAN RELATIONS IN ADMINISTRATION (3). The objective of this course is to develop, through cases and readings, attitudes and skills which will contribute to maximum effectiveness in the human aspects of administration, particularly with regard to decision making. *Fall and spring.* Calhoon, Whitehill.

297 BUSINESS RESEARCH AND REPORT WRITING (3). Analytical skills and reasoning in business situations are developed through the preparation of a variety of reports; knowledge of sources of information and their effective use is stressed. *Fall and spring.* Cohan, Whitehill, Holsten.

298 MANAGEMENT SIMULATION (3). Prerequisite, permission of the instructor. A seminar in the application of managerial principles to the operation of a complex industrial enterprise utilizing the Univac 1105 Computer. *Fall and spring.* Staff.

299 BUSINESS POLICY (3). Integrating and building upon the business administration core, this course approaches policy-making and administration in a firm from the point of view of top management. *Fall and spring.* Barrett.

350 SEMINAR IN PERSONNEL (3). Prerequisites, Business Administration 150 or equivalent, and permission of the instructor. A course for individual research in special fields of personnel administration. *Fall and spring.*[8] Calhoon, Whitehill, Jerdee.

360 SEMINAR IN MARKETING (3). Prerequisite, permission of the instructor. A course providing selected graduate students the opportunity to make an intensive study of specific marketing problems. *Fall and spring.*[8] McGregor, Logsdon, Kirkpatrick.

380 SEMINAR IN PRIVATE FINANCE (3). Prerequisite, permission of the instructor. Extensive independent reading in the literature of private finance, supplemented by discussions of frequent written reports on selected topics. *Fall.* Kreps, Floyd, Cohan.

390 SEMINAR IN BUSINESS ECONOMICS (3). Prerequisite, Economics 200 or permission of the instructor. Review of theory of demand and supply, statistical measurement of demand, statistical measurement of costs, uncertainty, change, theory of investment. *Spring.*[8] Cohan.

397 SEMINAR IN THE MODERN CORPORATION (3). Prerequisite, permission of the instructor. An analysis of the areas of conflict between the internal objectives of management and their external impact. *Fall.*[8] Barrett.

398 RESEARCH METHODOLOGY (3). Prerequisite, permission of the instructor. A course in research concepts, objectives and methods. *Spring.*[8] Staff.

399 SEMINAR (3). Prerequisite, permission of the instructor. Individual research in a special field under the direction of a member of the Department. *Fall and spring.*[8]

8. Equivalent of three hours a week.

DEPARTMENT OF CHEMISTRY

Professors: H. D. CROCKFORD, *Chairman,* J. T. DOBBINS,[1] E. C. MARKHAM,[2] O. K. RICE,[3] F. H. EDMISTER,[1] S. B. KNIGHT, R. L. MCKEE, H. G. THOMAS, S. Y. TYREE, JR., J. C. MORROW, C. N. REILLEY

Associate Professors: F. N. COLLIER, JR., W. F. LITTLE, R. G. HISKEY

Assistant Professors: J. P. COLLMAN, R. C. JARNAGIN, R. W. MURRAY, D. C. JICHA

Instructors: J. L. COKE, J. B. GOEHRING

Part-time Instructor: D. A. AIKENS

Research Associates: D. A. AIKENS, K. B. DESHPANDE, ISAO HASHIMOTO, SALLY M. HORNER, HIROSHI ICHIMURA, RUSSELL J. LEWIS, H. B. MARK, JR., D. G. MILNE, H. E. F. SCHURIG, J. G. SPENCER

Teaching Fellows: SUSAN E. FEIL, BETTY W. SHELLENBARGER, FRANK WALMSLEY

1. Professor, Emeritus.
2. Smith Professor of Chemistry.
3. Kenan Professor.

Teaching Assistants: C. J. ABRAHAM, J. B. ADAMS, J. W. ASHLEY, A. B. BARDAWIL, P. B. BAUM, W. H. BOWERS, A. M. CHACKO, J. W. CORR, W. B. COUNTS, H. R. CRAIG, R. N. DICKINSON, S. J. DOMINIANNI, R. J. DUBOIS, T. D. EPLEY, G. W. EVERETT, HANS R. E. FRANKFORT, D. J. GROSS, D. N. HARPP, L. B. HAWLEY, F. C. HENTZ, G. W. HEUNISCH, G. P. HILDEBRAND, W. W. HORNER, N. F. IRANI, A. A. KAWADA, D. H. KIM, F. H. KUSHNER, E. W. LEE, K. W. LUNDSTROM, KAY N. LYNN, W. E. NORTEMAN, D. M. OGLESBY, L. J. PAPA, E. B. PARKER, G. D. ROBBINS, A. G. ROSS, W. Y. RICE, C. T. SEARS, R. M. SHELLENBARGER, G. L. SILVER, A. L. SLADE, G. L. SOUTHARD, J. T. STAPLES, DORIS M. THOMPSON, FRANCES C. TURNER, W. C. WORSHAM, D. L. WRIGHT, E-CHUNG WU, J. D. YOUNT, R. A. YOUNT

For the A.B. with a major in chemistry, one of the following four sequences of courses may be selected: Chemistry 11-21, 43, 51, 61, 62, 44 or 83; or Chemistry 11-12, 21, 43, 61, 62, 44 or 83; or Chemistry 11-21, 43, 44, 51, 61, 64, 83; or Chemistry 11-12, 21, 43, 44, 61, 64, 83.

Those students who plan to teach in public high schools should see "School of Education" in Part III.

Bachelor of Science in Chemistry [4]

For freshman and sophomore years see "General College," Part III.

JUNIOR YEAR

Chemistry 61, 62
Chemistry 181, 182
Elective, 2 nonscience courses

SENIOR YEAR

English 33
Botany 41 or Zoology 11
Chemistry 45
[5]Chemistry electives, 2 courses
Nonscience electives, 1 course
Free elective, 1 course
Two of the following courses, at least one to be in Physics: Physics 103, 104, 105, 106, 107, 108; Mathematics 141 and 171

Courses for Undergraduates [6]

4 INTRODUCTION TO CHEMISTRY (4). (Does not replace Chemistry 11 as a prerequisite for Chemistry 21. Open only to students in the Division of Health Affairs.) An introduction to the study of the principles and laws of chemistry. *Three lecture hours and one two-hour laboratory a week, fall.* Staff.

5 INTRODUCTION TO ORGANIC AND BIOLOGICAL CHEMISTRY (4). Prerequisite, Chemistry 4. (Does not replace Chemistry 11, 12, or 21 as a prerequisite to any courses in the Department of Chemistry. Open only to students in the Division of Health Affairs.) *Three lecture hours and one two-hour laboratory a week, spring.* Staff.

4. This program meets the requirements of the American Chemical Society for the training of professional chemists.

5. Two chemistry elective courses to total a minimum of five semester hours, at least one of which includes laboratory.

6. For all laboratory courses in the Department, there is a breakage fee ranging from $5.00 to $20.00 per semester charged by the Scientific Supply Room to cover the cost of certain non-returnable items and to cover the cost of any apparatus a student may break. The balance of this deposit is returned when the student checks out of the course.

11 GENERAL DESCRIPTIVE CHEMISTRY (8). No credit will be given
12 for Chemistry 11 until either Chemistry 12 or Chemistry 21 is completed. *Three lecture and three laboratory hours a week, fall and spring.* Staff.

11 GENERAL DESCRIPTIVE CHEMISTRY AND QUALITATIVE ANALYSIS
21 (8). No credit will be given for Chemistry 11 until either Chemistry 12 or 21 is completed. *Three lecture and three laboratory hours a week, fall and spring.* Staff.

43 ELEMENTARY QUANTITATIVE ANALYSIS (5). Prerequisite, General Chemistry and Qualitative Analysis. Beginning quantitative analysis emphasizing both volumetric, gravimetric, and instrumental analysis techniques. *Two lecture and six laboratory hours a week, fall and spring.* Markham, Knight, Reilley, Murray, Aiken.

44 QUANTITATIVE ANALYSIS: SECOND COURSE (5). Prerequisite, Chemistry 43. A continuation of gravimetric and volumetric chemistry and an introduction to other analytical techniques. *Two lecture and six laboratory hours a week, spring.* Markham, Knight, Reilley, Murray.

45 ADVANCED QUANTITATIVE ANALYSIS (4). Prerequisite, Chemistry 43. Advanced quantitative analysis with special emphasis on instrumental methods. *Two lecture and four laboratory hours a week, spring.* Markham, Knight, Reilley, Murray.

51 INORGANIC CHEMISTRY (4). Prerequisite, Chemistry 21 or equivalent. *Three lecture and two laboratory hours a week, fall.* Tyree, Collier, Jicha.

61 ORGANIC CHEMISTRY (6 each). Prerequisite, Chemistry 21. *Three lec-*
62 *ture and six laboratory hours a week, both courses offered fall and spring.* McKee, Little, Hiskey, Collman, Coke.

64 ORGANIC CHEMISTRY (2). Prerequisite, Chemistry 61. Designed for premedical and predental students. No credit given for this course if Chemistry 62 (as offered on the semester basis) is taken. *Two hours a week, fall and spring.* McKee, Little, Hiskey, Collman, Coke.

83 PHYSICAL CHEMISTRY FOR PREMEDICAL STUDENTS (4). Prerequisites, Chemistry 43, 61, Mathematics 7, 8, and one year of college physics. Does not carry credit toward the B.S. degree in Chemistry. Designed for students taking predental, premedical, pharmaceutical, or biological work. *Three lecture and two laboratory hours a week, spring.* Crockford, Morrow, Jarnagin.

97 COURSES FOR HONORS (3 each). Prerequisites, Chemistry 181 and ad-
98 mission to Honors program by Honors Program Committee. Open to undergraduates in the B.S. Chemistry program only. *Three hours a week, fall and spring.* Staff.

Courses for Graduates and Advanced Undergraduates

101 SPECIAL PROBLEMS IN CHEMISTRY (1 to 3). Prerequisite, to be determined by consultation with Department Chairman. *Equivalent of one to three hours a week, every semester.* Any member of the departmental staff.

143 THEORETICAL ANALYTICAL CHEMISTRY (3). Prerequisites, Chemistry 43, 44. *Three hours a week, fall.* Knight.

145 INSTRUMENTAL ANALYSIS, ELECTRICAL METHODS (4). Prerequisites, Chemistry 43, 44, one year of college physics. *Two lecture and four laboratory hours a week, fall.* Markham, Knight, Reilley, Murray.

146 INSTRUMENTAL ANALYSIS, OPTICAL METHODS (4). Prerequisites, Chemistry 43, 44, one year of college physics. *Two lecture and four laboratory hours a week, spring.* Markham, Knight, Reilley, Murray.

147 QUANTITATIVE ORGANIC MICROANALYSIS WITH SOME QUANTITATIVE ANALYSIS OF FUNCTIONAL GROUPS (2). Prerequisites, Chemistry 43, 44, 62; prerequisite or corequisite, Chemistry 163. *Four laboratory hours a week, fall.* Markham, McKee.

151 152 ADVANCED INORGANIC CHEMISTRY (3 each). Prerequisites or corequisites, Chemistry 181, 182. *Three hours a week, fall and spring.* Tyree, Collier, Jicha.

154 INORGANIC PREPARATIONS (2). Prerequisite, Chemistry 51; prerequisites or corequisites, Chemistry 181, 182. *Four laboratory hours a week, fall or spring.* Tyree, Collier, Jicha.

163 QUALITATIVE ORGANIC ANALYSIS (5). Prerequisites, Chemistry 61, 62. *Two lecture and six laboratory hours a week, fall.* McKee, Little, Coke.

166 167 ADVANCED ORGANIC CHEMISTRY (3 each). Prerequisite or corequisite, Chemistry 163. *Three hours a week, fall and spring.* McKee, Hiskey, Little, Collman, Coke.

168 STRUCTURE DETERMINATION IN ORGANIC CHEMISTRY (3). Prerequisite, Chemistry 166. *Three hours a week, spring.* McKee, Hiskey, Little, Collman, Coke.

169 ADVANCED ORGANIC PREPARATIONS (2). Prerequisite or corequisite, Chemistry 166. *Four laboratory hours a week, fall or spring.* McKee, Hiskey, Little, Collman, Coke.

172 RADIOCHEMISTRY (3). Prerequisites, Chemistry 21, Physics 24, 25, and at least senior standing. *Two hours a week, fall.* Tyree, Collier; others.

173 LABORATORY TECHNIQUES IN RADIOCHEMISTRY (2). Prerequisite, Chemistry 172 or equivalent. *Four laboratory hours a week, spring.* Tyree, Collier; others.

181 182 PHYSICAL CHEMISTRY (6 each). Prerequisites, Chemistry 43 or equivalent, satisfactory work in physics and integral and differential calculus; prerequisites or corequisites, Chemistry 61, 62. *Three lecture and six laboratory hours a week, fall and spring.* Crockford, Morrow, Jarnagin.

184 185 CHEMICAL THERMODYNAMICS (3 each). Prerequisites, Chemistry 181, 182. Chemistry 184, basic principles of thermodynamics, and Chemistry 185, advanced topics. *Three hours a week, fall and spring.* Crockford, Morrow, Thomas, Jarnagin.

188 REACTION KINETICS (3). Prerequisites, Chemistry 181, 182. *Three hours a week, spring.* Crockford, Morrow, Rice, Jarnagin.

Courses for Graduates

242 243 SEMINAR IN ANALYTICAL CHEMISTRY (3 each). Prerequisite or corequisite, Chemistry 143. *Three hours a week, fall and spring.* Staff.

244 245 246 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (2 each). Prerequisite, Chemistry 182. (244, 245, 1961-1962 and alternate years; 246, 1962-1963 and alternate years.) *Two hours a week, fall and spring.* Markham, Knight, Reilley, Murray.

251 SPECIAL TOPICS IN INORGANIC CHEMISTRY (2 each). Prerequisites,
252 Chemistry 151, 152. *Two hours a week, fall and spring.* Tyree, Collier, Jicha.

254 SEMINAR IN INORGANIC CHEMISTRY (2). Prerequisites, Chemistry 151, 152. (1962-1963 and alternate years.) *Two hours a week, spring.* Tyree, Collier, Jicha.

255 SEMINAR IN INORGANIC CHEMISTRY (2). Prerequisites, Chemistry 151, 152. (1961-1962 and alternate years.) *Two hours a week, spring.* Tyree, Collier, Jicha.

261 LITERATURE SEMINAR IN ORGANIC CHEMISTRY (3 each). Pre-
262 requisite, graduate standing. (1961-1962 and alternate years.) *Two hours, or equivalent, a week, fall and spring.* McKee, Little, Hiskey, Collman, Coke.

263 ORGANIC REACTION MECHANISMS (3). Prerequisites, Chemistry 166, 167, 181, 182. (1962-1963 and alternate years.) *Three hours, or equivalent, a week, fall.* Little.

264 SPECIAL TOPICS IN ORGANIC CHEMISTRY (2 each). Prerequisite,
265 Chemistry 166. *Two hours, or equivalent, a week, fall and spring.* McKee, Little, Hiskey, Collman, Coke.

267 ORGANIC CHEMISTRY (3 to 6). Prerequisite, to be determined by consultation with professor in charge. *Three to six hours a week, every semester.* McKee, Little, Collman, Hiskey, Coke.

281 ATOMIC AND MOLECULAR CHEMISTRY (3). Prerequisites, Chemistry 181, 182. *Three hours a week, fall.* Rice.

282 CHEMICAL BINDING AND VALENCE (3). Prerequisite, Chemistry 281. *Three hours a week, spring.* Rice.

284 STATISTICAL MECHANICAL PROBLEMS IN CHEMISTRY (4). Prerequisite, Chemistry 281. *Four hours a week, fall.* Rice, Morrow.

286 SPECIAL TOPICS IN PHYSICAL CHEMISTRY (3). Prerequisites, Chemistry 184 and 281 or equivalent. *Three hours a week, fall and spring.* Crockford, Rice, Morrow, Thomas, Jarnagin.

287 LITERATURE SEMINAR IN PHYSICAL CHEMISTRY (2). Prerequisite, graduate standing. *Fall and spring.* Rice, Crockford, Thomas, Morrow, Jarnagin.

RESEARCH COURSES

301 THESIS RESEARCH (1 or more). Graduate staff.

341 ANALYTICAL CHEMISTRY (1 or more). Markham, Knight, Reilley, Murray.

351 INORGANIC CHEMISTRY (1 or more). Tyree, Collier, Jicha.

361 ORGANIC CHEMISTRY (1 or more). McKee, Little, Hiskey, Collman, Coke.

381 PHYSICAL CHEMISTRY (1 or more). Crockford, Rice, Morrow, Thomas, Jarnagin.

DEPARTMENT OF CITY AND REGIONAL PLANNING

Professors: J. A. PARKER, *Chairman,* F. S. CHAPIN, JR., F. N. CLEAVELAND, P. P. GREEN, JR., D. A. OKUN, J. M. WEBB
Assistant Professor: L. D. MANN
Lecturers: R. N. ANDERSON, JR., K. O. SCHMID, P. H. STEWART, S. F. WEISS
Research Assistants: J. A. CONNOLLY, L. R. DIPLOCK, D. D. DUNLAP, D. J. PORTMAN, R. B. POST, P. K. WICHMANN
In addition to the above, Professor J. W. Horn of the School of Engineering, North Carolina State College, contributes to the program of the Department.

The Department of City and Regional Planning offers two degree programs, both at the graduate level. A two-year program (generally consisting of three semesters of course work, a summer of internship, and a thesis) preparing for professional practice in city and regional planning leads to the degree of Master of Regional Planning. A program leading to the degree of Doctor of Philosophy prepares for academic careers in teaching and research. These two programs, opportunities in the field of city and regional planning, and application procedures are described in detail in a separate bulletin of the Department of City and Regional Planning which may be obtained by addressing a request to the Department.

A bachelor's degree from an accredited institution in one of the following fields is required for admission: architecture, business administration, economics, engineering, geography, history, the humanities, landscape architecture, law, philosophy, political science, psychology, public administration, or sociology. Applicants holding undergraduate degrees in fields not listed above may submit their credentials for consideration.

Undergraduates who contemplate graduate work in planning are advised to discuss their programs with the Chairman of the Department as early as possible. Planning 106, Introduction to City and Regional Planning, is offered each fall semester and is open to juniors and seniors. Introductory courses in cartography, design, economics, history of art and architecture, logic, philosophy, political science, sociology, statistics, and surveying, while not prerequisites, are recommended as valuable preparation for students in planning.

An important resource available to the Department is the Urban Studies Program, a research activity of the Institute for Research in Social Science. Established in 1953, the work of the Program has been facilitated by a Ford Foundation grant to investigate emerging forms of metropolitanism and develop approaches to problems of urban development.

The demand for persons with graduate education in city and regional planning considerably exceeds the supply. Alumni of the Department are employed by public and private planning agencies at the local, state, regional, and national levels in all parts of the United States and in other countries. Others serve as consultants to

business, industry, and government. Still others are engaged in teaching and research in academic institutions.

Courses for Graduates and Advanced Undergraduates

106 INTRODUCTION TO CITY AND REGIONAL PLANNING (3). Meaning of planning in city and region. Evolution of urbanism and regionalism as environmental planning. Planning practice and the profession today. Utopian thinking in modern planning. The future of planning. *Fall.* Mann.

127 TRAFFIC AND TRANSPORTATION (3). Study of problems involved in highway, airport, and railroad location, terminal facilities, traffic and parking surveys, methods of traffic control, and broad design requirements for mass transportation facilities. *Spring.* Horn.

205 MUNICIPAL FACILITIES AND MANAGEMENT (3). Study of the broader aspects of public health, sanitation, and municipal engineering as they relate to the planning, development, and administration of communities. (1961-1962 and alternate years.) *Fall.* Okun; others.

209 PLANNING AND GOVERNMENT (Political Science 209) (3). An examination of the evolution of planning in the United States, the activities of planning agencies, planning problems at various levels of government, and planning activities in other countries. *Fall.* Cleaveland.

215 THEORY OF PLANNING I (3). Relation of theory to practice. Unified approach to a comprehensive theory of planning. Physical planning in the decision-making process. Sub-theories for urban and regional planning and special branches thereof. Role of the planner in theory and practice. *Spring.* Mann.

216 THEORY OF PLANNING II (3). Frontiers in the theory of planning. Critical examination of current theories. Social science and administrative theories of planning related to planning theory. Philosophical problems in theories of planning. Development of new directions for planning theory. *Spring.* Mann.

220 COMMUNITY AND SITE DESIGN (6). Principles and procedures in the location and design of a new community. Students without previous design training are required to enroll in a design orientation section of Planning 220. *Fall.* Webb, Schmid.

222 URBAN PLANNING DESIGN (3). Individual and team surveys of social, economic, and physical conditions of an existing urban region. Preparation of a land development plan and proposals for the redevelopment of the central area. *Spring.* Staff.

223 ADVANCED PLANNING PROBLEMS (3). Conduct of special study giving attention in depth to (a) an urban renewal, or (b) a regional planning assignment. *Fall and spring.* Staff.

227 URBANISM SEMINAR (3). Analysis of trends in urbanism and urban living patterns, with particular attention to the way in which the physical development of cities and metropolitan areas may be related to these forces of change. *Fall.* Chapin.

230 PLANNING LEGISLATION (3). Enabling legislation for planning, urban and rural zoning, subdivision and other land use controls, urban redevelopment law, housing legislation, and other techniques of plan effectuation. *Fall.* Green.

235 URBAN PLANNING METHODS AND TECHNIQUES (3). Examination of methods and techniques employed in carrying out basic planning studies and in developing the comprehensive plan for an urban area, emphasizing economic, population and land use analyses. *Spring.* Chapin.

237 URBAN SPATIAL STRUCTURE (3). Evaluation of theories, models and research which seek to explain the spatial make-up of urban centers and regions and the dynamics of land development processes. (1962-1963 and alternate years.) *Spring.* Chapin.

238 METHODS OF RESEARCH FOR PLANNING (3). The nature of research. Research for planning related to social science and operations research. Probability, statistics and basic research implications. Survey of selected advanced techniques of promising application to planning research. *Fall.* Mann.

240 PLANNING INTERNSHIP (6). Prerequisites: four required courses in the City and Regional Planning curriculum. One summer's professional employment in an approved planning agency under competent supervision. *Summer.* Parker.

242 TECHNIQUES OF REGIONAL PLANNING (3). Concept and delineation of "planning regions." Resources planning framework. Logic of use, conservation and development of resources in regional setting. Location of activities and the planning process in regional development. (1961-1962 and alternate years.) *Fall.* Mann.

246 PLANNING FOR HOUSING AND RESIDENTIAL AREAS (3). Provision of shelter as a problem in human existence. History of the "housing problem" related to birth of planning. Social, economic and political aspects of modern housing in U. S. and other countries. Modern planning for housing. (1962-1963 and alternate years.) *Fall.* Mann.

250 URBAN DESIGN (3). Analysis of urban spaces of acknowledged quality. Space concepts and spatial relationships of traditionally important elements in the urban scene are investigated. Particular emphasis is given to the suggestiveness of dynamic and static characteristics of urban space in relation to its purpose. *Spring.* Webb, Schmid.

310 PLANNING RESEARCH SEMINAR (3 each semester). Original research
311 or field work on selected planning problems under guidance of a member of the faculty. *Fall or spring.* Staff.

320 THESIS (3). The original investigation of a planning problem through independent research or the presentation of an original planning project. Topic selected by the student, subject to the approval of the faculty. Staff.

The Following List is Illustrative of the Courses from Which Electives Are Chosen:

Department of Economics

111 International Resources and National Policy
131 Economic Theory
135 Economic Development in the United States
136 Economic Development in Western Europe
141 Public Finance
143 Problems in State and Local Finance

151 The American Transporation System
153 Economics of Public Utilities
163 Economic Development
201 Advanced Macro-Economics Theory II
203 Linear Programming
235 General Economic History
236 Modern Economic History
242 Problems in Federal Finance
295 Comparative Economic Systems
341 Research Course in Public Finance
399 Seminar

Department of Geology and Geography

151 Urban Geography
152 Economic Geography
153 Political Geography
157 Regional Geography of North America
159 Regional Geography of South America
160 Regional Geography of Middle America
171 Cartography
301 Seminar

Department of Political Science

101 Public Administration
132 Municipal Government in the United States
133 Municipal Administration in the United States
170 Public Opinion and Political Participation
175 A Systematic Study of American Political Parties
176 Community Political Systems
181 Recent National Policy and Administration
191 Public Finance
193 Problems in State and Local Finance
225 Administrative Organization and Management
292 Problems in Federal Finance
331 Problems in Public Administration
341 Seminar Course

Department of Sociology

134 Collective Behavior
153 Social Structure
154 Contemporary Society
165 Communication and Opinion
168 The City
169 The Industrial Community
173 Community Recreation
180 State and Regional Problems and Planning
181 Regional Sociology of the South
186 Population
197 Population Statistics
208 Methods in Social Research
209 Survey Research Methods
218 Human Ecology
274 Advanced Community Sociology
301, 302, 303 Graduate Research Seminar

DEPARTMENT OF CLASSICS

Professors: ALBERT I. SUSKIN, *Chairman*, B. L. ULLMAN,[1] J. P. HARLAND, P. H. EPPS,[1] WALTER ALLEN, JR., ROBERT J. GETTY,[2] R. B. HOUSE
Visiting Professor: ROBERT S. ROGERS
Associate Professors: CHARLES HENDERSON, JR., HENRY R. IMMERWAHR
Assistant Professors: HUBERT M. MARTIN, JR., KENNETH J. RECKFORD[3]
Lecturer: IRIS W. FRIEDERICH
Instructors: EDWIN L. BROWN, JAMES N. SETTLE, HERMAN W. TAYLOR, JR.
Teaching Fellow: ROBERT J. BARNETT, JR.
Part-time Instructors: JOHN S. CATLIN, C. GRIER DAVIS, WILL W. DE GRUMMOND, DANIEL H. GARRISON, WILLIAM KING, WILLIAM C. KURTH, WILLIAM C. WEST, JOHN E. ZIOLKOWSKI
Graduate Assistants: KEVIN E. BOGGINS, P. A. CLINE, LEWIS E. HAYMES, WILLIAM C. PERRINE

GREEK

Students interested in having their undergraduate major in Greek should consult the department by the last semester of their sophomore year. Students interested in a combined major in Latin and Greek should consult the Department of Classics. Two semesters of Greek, or Latin, or mathematics must be taken by each candidate for the A.B. degree. For Greek as satisfying the language requirement for the A.B. degree see "General College," in Part III.

Courses for Undergraduates

1-2 ELEMENTARY GREEK (3 each). *Fall and spring.* Martin, Brown, Taylor.

3-4 INTERMEDIATE GREEK[4] (3 each). *Fall and spring.* Martin, Brown.

14 ELEMENTARY GREEK (3). For graduate students. *One semester.* Martin.

21 22 ADVANCED GREEK (3 each). Prerequisite, Greek 4 or equivalent. *Fall and spring.* Martin.

80 HOMER, ILIAD (3). Prerequisite, Greek 21 or equivalent. *One semester.* Immerwahr.

82 PLATO (3). Prerequisite, Greek 21 or equivalent. *One semester.* Immerwahr, Martin.

88 GREEK NEW TESTAMENT (3). Prerequisite, Greek 3 or equivalent. *Spring.* Martin.

97 98 HONORS COURSE (6). *Fall and spring.* Staff.

Courses for Graduates and Advanced Undergraduates

112 HOMER, ODYSSEY OR ILIAD (3). Prerequisite, Greek 21 or equivalent. *One semester.* Getty.

153 GREEK TRAGEDY, AESCHYLUS, SOPHOCLES OR EURIPIDES (3). Prerequisite, Greek 21 or equivalent. *Fall and spring.* Immerwahr.

1. Kenan Professor, Emeritus.
2. Paddison Professor of Classics.
3. Absent on leave, 1961-1962.
4. Either of these courses may be taken separately for elective credit.

154 GREEK COMEDY (3). Prerequisite, Greek 21 or equivalent. *One semester.* Immerwahr.

155 PLUTARCH (3). Prerequisite, Greek 21 or equivalent. *One semester.* Martin.

156 GREEK LYRIC POETRY (3). Prerequisite, Greek 21 or equivalent. *One semester.* Immerwahr.

157 HELLENISTIC POETRY (3). Prerequisite, Greek 21 or equivalent. *Fall.* Getty.

158 GREEK NEW TESTAMENT (3). Prerequisite, Greek 21 or equivalent. *One semester.* Martin.

171 GREEK HISTORIANS, HERODOTUS OR THUCYDIDES (3). Prerequisite, Greek 21 or equivalent. *One semester.* Immerwahr.

181 GREEK ORATORS (3). Prerequisite, Greek 21 or equivalent. *Spring.* Immerwahr, Martin.

182 PLATO (3). Prerequisite, Greek 21 or equivalent. *Fall.* Martin.

301 GREEK SEMINAR (3 each). *Fall and spring.* Immerwahr.
302

310 THESIS COURSE (3). *Either semester.* Getty, Immerwahr, Martin.

For additional courses see below under Courses Not Requiring a Reading Knowledge of the Greek or Latin Language and under Comparative Literature. Attention is called also to courses in Linguistics.

LATIN

Students interested in an undergraduate major in Latin should consult the department in the last semester of their sophomore year. A minimum of six courses is required in addition to Latin 21. Students interested in a combined major in Latin and Greek should consult the Department of Classics. Two semesters of Greek, or Latin, or mathematics must be taken by each candidate for the A.B. degree. For Latin as satisfying the language requirements for the A.B. degree see "General College" in Part III.

Courses for Undergraduates

1-2 ELEMENTARY LATIN (3 each). *Fall and spring.* Instructors.

3X INTERMEDIATE LATIN (3). For students who had two years of Latin in high school but find Latin 3 too difficult. The course begins with a thorough review of elementary Latin. *Fall and spring. Five hours a week, 3 credits.* Settle, Taylor; instructors.

3-4 INTERMEDIATE LATIN[5] (3 each). 3: Cicero. 4: Vergil. Freshman and sophomore elective. *Fall and spring.* Settle, Taylor; instructors.

14 RAPID READING IN LATIN (3). May be taken with or without credit by those who wish to gain or refresh ability to read Latin prose. Class needs will determine selection of authors. *Fall.* Suskin.

5. Either of these courses may be taken separately for elective credit.

21 ADVANCED LATIN (3 each). Prerequisite, three or four units of high
22 school Latin or Latin 3-4. Freshman and sophomore elective. Selections from Latin prose and verse, chiefly Livy and Catullus. 21: *Fall and spring;* 22: *Spring.* Suskin, Settle, Taylor.

51 CICERO'S LETTERS (3). Prerequisite, Latin 21. *One semester.* Suskin.

52 ROMAN SATIRE (3). Prerequisite, Latin 21. *One semester.* Suskin, Reckford.

53 LATIN LYRIC POETRY (3). Prerequisite, Latin 21. *One semester.* Suskin, Henderson.

54 THE ROMAN HISTORIANS (3). Prerequisite, Latin 21. *One semester.* Suskin, Allen, Getty.

55 PLAUTUS AND TERENCE (3). Prerequisite, Latin 21. *Spring.* Suskin.

56 OVID (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

57 LUCRETIUS (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

58 VERGIL (3). Prerequisite, Latin 21. *Fall.* Suskin.

59 PETRONIUS (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

60 PLINY'S LETTERS (3). Prerequisite, Latin 21. *One semester.* Henderson.

71 COURSE FOR TEACHERS (3). Prerequisite, Latin 21. *On application.* Suskin, Getty.

97 HONORS COURSE (6). *Fall and spring.* Staff.
98

Courses for Graduates and Advanced Undergraduates

101 ROMAN HISTORICAL LITERATURE, TACITUS OR SUETONIUS (3). Prerequisite, Latin 21. *Spring.* Allen.

102 ROMAN DRAMATIC LITERATURE, PLAUTUS AND TERENCE (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

103 PROSE WRITINGS OF THE REPUBLIC (3). Prerequisite, Latin 21. *Fall.* Suskin, Rogers.

104 CICERO: POLITICAL CAREER AND WORKS (3). Prerequisite, Latin 21. This course deals with Cicero's *Letters* or *Orations,* as determined by the needs of the class. *One semester.* Allen.

105 JUVENAL (3). Prerequisite, Latin 21. *One semester.* Suskin.

106 LUCRETIUS (3). Prerequisite, Latin 21. *One semester.* Getty.

107 LATIN COMPOSITION (3). Prerequisite, Latin 21. *One semester.* Allen.

108 MARTIAL (3). Prerequisite, Latin 21. *Spring.* Getty.

109 CICERO: PHILOSOPHICAL WORKS (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

110 MEDIEVAL LATIN (3). Prerequisite, Latin 21. Reading of selections from representative writers in prose and poetry. *Fall.* Getty.

112 ROMAN ELEGY (3). Prerequisite, Latin 21. *One semester.* Getty.

113 LIVY (3). Prerequisite, Latin 21. *One semester.* Suskin, Henderson.

114 POETS OF THE REPUBLIC (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

117 VERGIL (3). Prerequisite, Latin 21. *One semester.* Suskin, Getty.

118 FRAGMENTS OF EARLY LATIN POETRY (3). Prerequisite, Latin 21. Livius Andronicus, Naevius, Ennius, Pacuvius, Accius, Lucilius, etc. Consideration of these authors as forerunners of the poets of the Golden Age. *One semester.* Getty.

119 OVID (3). Prerequisite, Latin 21. A study of Ovid and his writings with special reference to the *Metamorphoses. One semester.* Suskin, Henderson.

121 PETRONIUS (3). Prerequisite, Latin 21. The relations of Petronius to satire and to development of the novel; introduction to Vulgar Latin. *One semester.* Getty.

122 LUCAN (3). Prerequisite, Latin 21. Reading of most of *The Civil War* in Latin; consideration of Lucan's place in the literature of the Silver Age and in the tradition of epic poetry, together with a study of his historical accuracy. *One semester.* Getty.

123 PROSE WRITINGS OF THE EMPIRE (3). Prerequisite, Latin 21. *Spring.* Getty.

124 POETS OF THE EMPIRE (3). Prerequisite, Latin 21. *One semester.* Getty.

131 LATIN WRITERS OF THE ITALIAN RENAISSANCE (3). Prerequisite, Latin 21. Reading of selections beginning with Petrarch, with some consideration of the origin of the Renaissance. *One semester.*

Courses for Graduates

202 LATIN EPIGRAPHY (3). *Spring.* Rogers.

203 LATIN PALEOGRAPHY (3). *One semester.* Getty.

301 LATIN SEMINAR (3). *Fall and spring.* Allen, Getty.
302

303 LATIN SEMINAR (3). *One semester.* Allen, Getty.

310 THESIS COURSE. *Either semester.* Suskin, Allen, Getty, Henderson.

CLASSICS IN ENGLISH

(Courses Not Requiring a Reading Knowledge of the Greek or Latin Language)

The following courses in classical literature and civilization are especially designed to supply the necessary foundation for those who, without a reading knowledge of the ancient languages, wish a broader culture, or plan to specialize in modern literature, history, arts, etc. When properly approved, they will be allowed to count as part of the major requirement in other departments. They may be taken also to satisfy the requirements of a minor in literature. See also under Comparative Literature.

Courses for Undergraduates

31 GREEK LITERATURE (3). Sophomore elective. Not open to juniors and seniors or those who have taken Classics 61. A rapid survey of the major authors. *Fall.* House.

32 LATIN LITERATURE (3). Sophomore elective. Not open to juniors and seniors or those who have taken Classics 62. A rapid survey of the major authors. *Spring.* House.

61 GREEK LITERATURE (3). For juniors and seniors. Not open to those who have had Classics 31. A study of the major authors and their contributions to modern thought and literary forms. *Fall.* Martin, Brown.

62 LATIN LITERATURE (3). For juniors and seniors. Not open to those who have had Classics 32. A study of the major authors and their contributions to modern thought and literary forms. *Spring.* Martin, Brown.

75 GREEK CIVILIZATION (3). The achievements of the ancient Greeks and their contributions to the modern world in art, architecture, medicine, science, politics, education, theater, religion, etc. *Fall.* Harland, Brown.

76 ROMAN CIVILIZATION (3). Roman public and private life, manners, and ideals; buildings, living conditions, commerce, religion, government, art, etc. *Fall.* Allen.

77 GREEK MYTHOLOGY (3). An introduction to mythology, followed by a study of the various cycles of myths which developed in ancient Greece. Illustrations from sculpture and vase-paintings. *Spring.* Harland.

85 ARCHAEOLOGY OF THE BIBLE (3). Biblical history in the light of excavations in Palestine and the ancient Near East. The art and civilization of the peoples of the Old Testament. *Fall.* Harland.

91 ARCHAEOLOGY OF THE NEAR EAST (3). The art and architecture of Egypt, Mesopotamia, and the rest of the ancient Near East. *One semester.* Harland.

92 GREEK ARCHAEOLOGY (3). The historical development of the art of Greece from the Bronze Age through the historical period. Greek architecture, painting, and the other arts. *One semester.* Harland.

93 GREEK SCULPTURE (3). The development of Greek sculpture as one phase of the civilization of the ancient Hellenes. *Spring.* Harland.

95 ANCIENT ARCHITECTURE (3). The architecture of Egypt, Mesopotamia, Greece, and Rome, with emphasis on the contributions made by these lands to modern architecture. *Fall.* Harland.

97 ROMAN ART (3). The arts of Rome, particularly architecture, sculpture, and painting, preceded by a survey of Etruscan and Hellenic art and their influence on Rome. *One semester.* Harland.

Courses for Graduates and Advanced Undergraduates

103 GREEK AND ROMAN EPIC (3). Reading of the ancient epics, with emphasis on Homer and Vergil. Structure of the poems, history of epic as a literary form, the poems as expressions of the spirit of their ages. *Spring.* Allen.

107 GREEK DRAMATIC LITERATURE (3). Reading of about fifteen Greek plays. Origin and growth of the Greek theater and drama; Aristotle's *Poetics;* literary quality of the plays; religious, social, and political ideas of the fifth century B.C. *Fall.* Allen.

109 GREEK AND ROMAN HISTORICAL LITERATURE (History 109) (3). The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others with consideration of their literary qualities and their reliability as historians. *Spring.* Allen.

114 GREEK AND ROMAN COMEDY (3). *One semester.* Allen.

176 ROMAN CIVILIZATION (3). *One semester.* Allen.

193 HELLENIC ART (3). Prerequisite, Archaeology 92, or 93, or Greek 75, or Greek history. *One semester.* Harland.

195 THE AEGEAN CIVILIZATION (3). Prerequisite, Archaeology 91 or ancient history. *One semester, on application.* Harland.

CURRICULUM IN COMPARATIVE LITERATURE

W. P. FRIEDERICH,[1] *Chairman.* Advisory Committee: Professors HARRY E. DAVIS, C. HUGH HOLMAN,[1] JOHN G. KUNSTMANN, S. A. STOUDEMIRE, ALBERT I. SUSKIN

The Curriculum in Comparative Literature offers students an opportunity to become familiar with the work of the leading figures of Western literature and thereby to acquire a particularly broad and liberal education. An undergraduate major in comparative literature consists of eight courses, two of which must be in the classics. Students are urged to concentrate on two or three literatures and to develop at least one literature to the 100 level. They must see Mr. Friederich at the beginning of their junior year.

LITERATURE IN ENGLISH TRANSLATION

Courses for Undergraduates

61 GREEK LITERATURE (3). A survey of the major authors and their contributions to modern thought and literary forms. *Fall.* Brown, Martin.

62 LATIN LITERATURE (3). A survey of the major authors and their contributions to modern thought and literary forms. *Spring.* Brown, Martin.

63 LITERARY ASPECTS OF THE BIBLE (Religion 63) (3). The Old and New Testament will be taken up in alternate years. *Spring.* Howell.

65 ORIENTAL LITERATURE (3). A rapid survey of interesting features in the literature, language, and civilization, chiefly of India, China, and Japan. *Spring.* Holmes.

97 HONORS COURSE (3). Required of all students reading for honors in Comparative Literature. Engstrom.

Courses for Graduates and Advanced Undergraduates

107 GREEK DRAMATIC LITERATURE (3). Reading of about fifteen Greek plays. Origin and growth of the Greek theatre and drama; Aristotle's *Poetics;* literary quality of the plays; religious, social, and political ideas of the fifth century B.C. *Fall.* Allen.

117 CERVANTES (3). A study of Cervantes' *Don Quixote* and the *Exemplary Novels. Fall.* Stoudemire.

135 FRENCH CLASSICISM (3). A survey of the origins of classicism in France. The plays of Corneille, Molière, Racine, and their contemporaries. The decline of classicism. *Spring.* Wiley.

1. Kenan Professor.

137 SURVEY OF GERMAN LITERATURE (3). An outline emphasizing the masterpieces around 1200, the works of the preclassic and classic periods, and contemporary literature. *Fall.* Reichert.

155 GOETHE (3). Goethe's life and work placed against the background of European classicism and romanticism and the Napoleonic Wars. *Fall.* Friederich.

156 DANTE (3). The beginning of Italian literature. The *Vita Nuova* and *The Divine Comedy*. *Spring.* Huse.

160 RUSSIAN PROSEWORKS OF THE NINETEENTH CENTURY (3). Pushkin, Gogol, Turgenev, Dostoevski, and Tolstoi. *Fall.* Mihailovich.

COMPARATIVE COURSES

Courses for Graduates and Advanced Undergraduates

103 GREEK AND ROMAN EPICS (3). Reading of the ancient epics, with emphasis on Homer and Vergil. Structure of the poems, history of the epic as a literary form, the poems as expressions of the spirit of their ages. *Spring.* Allen.

109 GREEK AND ROMAN HISTORICAL LITERATURE (3). The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others, with consideration of their literary qualities and their reliability as historians. *Spring.* Allen.

112 ARABIC LITERATURE (3). The peoples of the Near East through their literary achievements; outstanding Arabic and Persian writers and their influence on Western literature. *Fall.* Cantarino.

141 LITERARY CRITICISM (3). The principles which have animated classical, romantic, and realistic literature. *Fall.* Bond.

162 MODERN CONTINENTAL DRAMA (3). A study of representative plays of the modern period from Ibsen to Giraudoux. *Spring.* Jurgensen.

170 THE MIDDLE AGES (3). A survey of medieval France, England, Germany, Spain, Italy, and Byzantium, from the viewpoints of civilization, art, and literature. *Spring.* Linker.

175 RENAISSANCE AND BAROQUE (3). The period from Dante to Calderón with special emphasis on Italian and Spanish contributions to French, English, and German letters. *Fall.* Friederich.

177 CLASSICISM AND PRE-ROMANTICISM (3). The period from the French school of 1660 to the German *Sturm und Drang,* with special emphasis on French and English contributions. *Spring.* Friederich.

185 INTRODUCTION TO FOLKLORE (3). Definitions and examples of folklore in general and its various categories. Collection, classification, study, and analysis of folklore materials. Bibliography. *Fall.* Hudson.

186 FOLK NARRATIVE (3). Study of origin, development, and dissemination of myths, legends, and folktales, with a survey of their use in masterpieces of world literature. *Spring.* Keller.

201 PROBLEMS AND METHODS IN COMPARATIVE LITERATURE (3). The growth of comparative scholarship since 1800. Bibliography, Thematology, Influences, Parallelisms, *Zeitgeist,* and other modes of investigation. *Spring.* Friederich.

240 READING COURSE (3). *One lecture hour a week, fall or spring.* Friederich.

395 RESEARCH (with thesis 3). Staff.

CREATIVE WRITING

See offerings in Department of Dramatic Art, Department of English, and Department of Radio, Television, and Motion Pictures.

DEPARTMENT OF DRAMATIC ART

Professors: H. E. DAVIS, *Chairman*, R. B. SHARPE, EARL WYNN, J. W. PARKER
Associate Professors: KAI JURGENSEN, FOSTER FITZ-SIMONS, T. M. PATTERSON, R. B. GRAVES, W. H. WALLACE, J. S. CLAYTON, JOHN EHLE
Assistant Professors: R. E. SCROGGS, JR., TOM REZZUTO, JR., ROBERT L. HILLIARD
Lecturer: IRENE SMART RAINS
Graduate Assistants: GORDON W. CLARK, JOHN H. CROCKETT, JR., HARRY GENE LOMINAC, JOSEPH A. MCCARTHY, JOHNNY W. MEADOWS, LARRY L. RANDOLPH, LEILANI THORNBURG

Description of Courses

The courses in dramatic art are designed to provide: (a) thorough foundation training in dramatic literature and the theatre arts for students who intend to teach or direct in the high school, college or community theatre, or to enter the professional theatre or related fields; (b) intensive groundwork in the theory and practice of theatre and drama for students who intend to do graduate work in the scholarly, technical or creative aspects of the field; and (c) elective courses for students from other departments who wish to enrich and broaden their cultural and esthetic experience with a study of the oldest and most universal of human arts.

Practical training for the student of playwriting, acting, directing and the technical arts is provided through the extensive production program of The Carolina Playmakers, the producing unit of the Department. The Playmakers Theatre, the Koch Memorial Forest Theatre, and the Playmaker Scene and Costume Shop afford the student valuable opportunities to test theory by practice, in both experimental and major productions. A description of the Playmaker program of activities is found in Part V.

Admission to the Department of Dramatic Art as an undergraduate major presupposes completion of the General College program in this institution, or equivalent work done elsewhere.

Requirements for the Major: The dramatic art major must complete for the A.B. degree twenty full courses, distributed as follows:

Major Courses (seven to ten)

Required (seven courses): 40, 64, 65, 150, 160 or 161, 162 or 195, one elective. Elective (one to four): 45, 58, 60, 61, 63, 66, 78, 81, 95, 159, 160, 161, 162, 176, 177, 179, 187, 190, 195.

(Note: several of the elective courses are cross-listed with the Department of Radio, Television, and Motion Pictures, and taught in that department. For the Dramatic Art major, however, they are considered Dramatic Art [major] courses.)

Allied Courses

Five to eight courses in allied departments.

Non-allied Courses

Five to eight courses in non-allied departments.

Honors Program in Reading or Writing

Students interested in a program for Honors should consult the Chairman of the Department during their first semester of work.

Students who plan to enter graduate work in Dramatic Art at this institution should include in their electives Dramatic Art 61, and either 155 or 156.

Courses for Undergraduates

30 INTRODUCTION TO THE THEATRE (3). Sophomore elective, open to juniors and seniors. Survey of the history and literature of the drama from the earliest times to the present. Lectures, demonstrations, and the reading of selected plays. *Fall.* Jurgensen.

31 THEATRE IN THE MODERN WORLD (3). Sophomore elective, open to juniors and seniors. Survey of the basic principles and underlying philosophy of drama in the contemporary theatre, with emphasis on its esthetic, social and technical aspects. Lectures, demonstrations, and the reading of selected plays. *Spring.* Graves.

40 VOICE TRAINING (3). Open to dramatic art, and radio, television, and motion picture majors only. Fundamental principles underlying the effective use of voice and speech. *Fall,* Wynn; *spring,* Graves.

45 CRITICAL ANALYSIS OF RADIO, TELEVISION, AND MOTION PICTURES (R-TV-MP 45) (3). Sophomore elective, open to juniors and seniors. Limited to 60 students. *Fall and spring.* Wynn, Clayton; staff.

50 DIRECTED READINGS (3). Only for graduate transfer students needing to make up undergraduate deficiencies in the Department. Assigned readings in a selected field of dramatic literature. *Summer session only.*

57 THE DANCE (3). Open for credit to dramatic art majors and recreation majors in sociology only. A study of the cultural development of the Dance and its relation to the other arts from the beginning to the present time, with practical training in fundamental techniques. *One lecture and four laboratory hours a week, fall.* Fitz-Simons.

58 DEVELOPMENT OF BROADCASTING, PART I (R-TV-MP 58) (3). *Fall and spring.* Wallace.

60 PRODUCTION FUNDAMENTALS (R-TV-MP 60) (3). Open to radio, television, and motion pictures and dramatic art majors only. A study of accepted and experimental methods of communication in radio, television, and motion pictures. *Fall and spring.* Hilliard.

61 ACTING (3). A study of fundamental principles and practice for the actor. *Fall.* Fitz-Simons, Jurgensen.

63 PLAY DIRECTING (3). Prerequisite, Dramatic Art 61. Registration limited, and permission of instructor required. (Note: A student may not take both 63 and 190 for degree credit.) *Spring.* Fitz-Simons.

64 TECHNICAL METHODS I (3). Introduction to equipment and the procedures of handling scenery, lighting, costumes, and make-up in the theatre. *One lecture and four laboratory hours a week, fall.* Rezzuto, Graves, Rains.

65 TECHNICAL METHODS II (3). Prerequisite, Dramatic Art 64. Theory and practice in the preparation of scenery, lighting or costumes for the theatre. *One lecture and four laboratory hours, spring.* Rezzuto, Graves, Rains.

66 STAGE DESIGN (3). General principles of visual design as applied to scenery, lighting, and costumes in the theatre. Instruction in the techniques of planning and rendering. *One lecture and four laboratory hours a week, spring.* Rezzuto.

78 WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART I (R-TV-MP 78) (3). A basic course dealing chiefly with drama. *Fall and spring.* Ehle.

81 NON-FICTION WRITING (R-TV-MP 81) (3). Open to radio, television, and motion pictures and dramatic art majors only. Theories and practices of writing non-dramatic materials for radio, television, and motion pictures. *Fall.* Hilliard.

95 ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (English 95) (3). A survey of dramatic movements and writers from 1900 to the present. *Spring.* Sharpe.

97 98 COURSES FOR HONORS (6). Reading and preparation for essay or project under direction of staff. See Program for Honors Work in the College of Arts and Sciences.

Courses for Graduates and Advanced Undergraduates

150 SHAKESPEARE IN THE THEATRE (3). A study of the literary and stage history of about twelve representative plays. *Fall.* Jurgensen.

155 PLAYWRITING I (3). A practical course in the writing of the stage play. *Fall.* Patterson.

156 PLAYWRITING II (3). The principles of dramatic construction and practice in the writing of one-act plays. *Spring.* Patterson.

159 DEVELOPMENT OF BROADCASTING, PART II (R-TV-MP 159) (3). Prerequisite, R-TV-MP 58. *Fall.* Wallace.

160 HISTORY OF THE THEATRE (3). A study of the development of the theatre, its place in the history of civilization and its changing relations to social conditions. *Spring.* Jurgensen.

161 CONTINENTAL DRAMA BEFORE IBSEN (3). A general survey of the drama and the theatre from Aeschylus to Goethe. *Fall.* Graves.

162 MODERN CONTINENTAL DRAMA (Comparative Literature 162) (3). A study of representative plays of the modern period from Ibsen to Giraudoux. *Spring.* Graves.

176 RADIO PRODUCTION ARTS (R-TV-MP 176) (4). Open to radio, television, and motion pictures and dramatic art majors only. A study of the principles and methods of radio production and direction. *Two lecture and four laboratory hours a week, fall.* Hilliard.

177 TELEVISION PRODUCTION ARTS (R-TV-MP 177) (4). Open to radio, television, and motion pictures and dramatic art majors only. A study of the principles and methods of television production and direction. *Two lecture and four laboratory hours a week, fall and spring.* Clayton.

179 WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART II (R-TV-MP 179) (3). Prerequisite, R-TV-MP 78. *Spring.* Ehle.

187 MOTION PICTURE PRODUCTION ARTS (R-TV-MP 187) (4). Open to radio, television, and motion pictures and dramatic art majors only. Physics 45, Photography is recommended as preparation for this course. A study of the principles and methods of motion picture production and direction. *Two lecture and four laboratory hours a week, spring.* Scroggs.

190 THEORY AND PRACTICE OF PLAY DIRECTION (3). Under special conditions, with the permission of the Department, this course may be substituted for either Dramatic Art 63 or 201. *Summer session only.*

195 ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (English 195) (3). A survey of dramatic movements and writers from 1900 to the present. *Summer session only.*

Courses for Graduates

200 TECHNICAL DIRECTION (3). Prerequisites, Dramatic Art 64, 65, and 66, or equivalent training in technical practice. (1962-1963 and alternate years.) *Fall.* Davis.

201 PLAY DIRECTING, ADVANCED (3). Prerequisite, Dramatic Art 61 or equivalent training. *Spring.* Davis.

202 STAGING METHODS (3). Prerequisites, Dramatic Art 200 and a course in freehand drawing or equivalent experience. (1961-1962 and alternate years.) *Spring.* Davis.

203 TECHNICAL PROBLEMS IN PLAYWRITING (3). Prerequisite, Dramatic Art 155 or 156. *Fall and spring.* Patterson.

210 THEATRE ADMINISTRATION (3). Open to selected dramatic art majors only. *Spring.* Parker.

295 ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (English 295) (3). A survey of dramatic movements and writers from 1900 to present. *Fall.* Sharpe.

299 THEATRE WORKSHOP (2-8 hours credit, not towards a degree except in the Licentiate program.) Open to a limited number of qualified students who have already secured a bachelor's or master's degree, with special permission of the Chairman of the Department. Advanced practical work in one selected department of theatre technique. *Fall and spring.* The staff of The Carolina Playmakers.

340 SPECIAL READINGS (3). Research in a special field of Modern Drama or the History of the Theatre. This course may not be repeated for credit. *Time to be arranged.* Davis; staff.

395 SEMINAR IN MODERN DRAMA (English 395) (3). Research in dramatic literature, theatrical history, and staging methods. *Fall.* Sharpe, Davis, Patterson, Graves.

DEPARTMENT OF ECONOMICS

Professors: P. N. GUTHRIE, *Chairman,* D. D. CARROLL,[1] C. P. SPRUILL,[2] CLARENCE HEER,[1] M. S. HEATH, D. J. COWDEN, R. S. WINSLOW, O. T. MOUZON, L. D. ASHBY,[3] C. E. PHILBROOK, M. W. LEE, R. W. PFOUTS, H. HOTELLING,[4] J. C. INGRAM, W. N. PARKER, D. T. LAPKIN
Ford Foundation Visiting Professor: L. KATZ
Associate Professors: RASHI FEIN,[3] J. H. BLACKMAN, W. HAMBURGER
Acting Associate Professor: L. KOZIEBRODZKI
Assistant Professors: DELL B. JOHANNESEN, D. G. BROWN
Lecturers: FRANZ GUTMANN,[5] W. L. IVEY
Part-time Instructors: J. CREWS, J. DIBERARDINO, J. C. FISHER, C. FLOYD, P. KELLEY, C. MORRISON, C. L. NELSON, S. O. PARK, M. PRIMACK, N. RUCKER, D. SCHILLING
Teaching Fellows: ANNE GRAY, G. L. HYDE

The Department of Economics offers courses leading to an A.B. degree with a major in economics through the College of Arts and Sciences. The M.A. and Ph.D. degrees in economics are offered through the Graduate School. Courses in economics are elected by and/or required of students in other departments and schools.

Undergraduate Major

Opportunities for Economics Majors: The courses leading to an A.B. degree with a major in economics comprise a large area of inquiry into the problems and structure of the economic segment of society. The curriculum available provides the opportunity to achieve one or more of the following objectives.

1. General education for intelligent citizenship with special emphasis upon the development of the understanding of the principles and problems of modern life.
2. Preparation for private employment. In pursuing this objective, supplementary courses in business administration may be selected and integrated with the student's program.
3. Preparation for governmental employment.
4. Preparation for post-graduate work leading to the degrees of M.A. and Ph.D. in economics.
5. Specialized combination undergraduate programs such as prelaw and international studies, and either of the ROTC programs available at the University.

Requirements: For the degree of A.B. with a major in economics:

1. A minimum total of twenty (20) full semester divisional (Social Science) and nondivisional (Humanities and Natural Science) courses (60 semester hours) is required in addition to those necessary for admission to the College of Arts and Sciences.

1. Kenan Professor, Emeritus.
2. Alumni Distinguished Professor of Economics.
3. Absent on leave, 1961-1962.
4. Kenan Professor.
5. Lecturer, Emeritus.

2. The minimum total of twenty (20) courses (i.e., 60 semester hours) must be selected in accordance with the following distribution:
   (a) Six (6) full semester courses in economics (in addition to Economics 31 and 32) including Economics 70 and Economics 81 are required, and seven (7) full semester courses in economics are recommended.
      (1) Economics 31 and 32 should be taken while in General College. A grade of *C* or better in Economics 31 and 32 is required as a condition for admission to a program leading to a major in economics.
      (2) Mathematics 6 or 15, and 7 or 31 are required.
   (b) From six (6) to seven (7) full semester allied courses (18 to 21 semester hours) within the Division of Social Sciences are required. With the permission of the Chairman of the Department, a maximum of three (3) business administration courses may be counted as allied courses, if they constitute a part of a well-developed and integrated program of study. The combined maximum number of courses in economics and business administration shall not exceed nine (9) (i.e., 27 semester hours).
   (c) From six (6) to seven (7) full semester nondivisional courses within the Division of Humanities and Natural Sciences are required.

Program for Honors Work: A student may, as a result of distinguished work, be awarded a degree with Honors or Highest Honors. The details of this program of special studies are available from the Chairman of the Department.

Graduate Degrees

The M.A. and Ph.D. degrees in economics are offered through the Graduate School. The objectives, requirements and other details for the M.A. and Ph.D. degrees are explained in the catalogue of the Graduate School.

General Requirements

For Economics majors, Economics 31-32 or equivalents, with grades of *C* or better, are prerequisite to all other courses in Economics, except those Economics courses numbered under 70, Economics 91, and as otherwise indicated. Economics 61 with a grade of *C* or better may, under certain circumstances, be substituted for Economics 31-32.

Courses for Undergraduates

30 INTRODUCTION TO ECONOMICS (3). Sophomore elective. Closed to prospective economics and business administration majors and to juniors and seniors. Provides an understanding of the economic system. Discusses economic problems of the market on both the national and international levels. *Fall and spring.* Fein, Blackman.

31 GENERAL ECONOMICS (3 each semester). Not open to freshmen. Sophomore elective. An introduction to economic principles, problems, and policies. *Fall and spring.* Staff.
32

61 PRINCIPLES OF ECONOMICS (3). For juniors and seniors not majoring in economics; not open to students in the General College. The structure, functions, and underlying principles of modern economic life. *Fall and spring.* Mouzon, Koziebrodzki.

70 ELEMENTARY STATISTICS (3). Prerequisites, Mathematics 6 or 15, and 7 or 31. Sources and collection of data, tabular and graphic presentation, averages, dispersion, time-series analysis, correlation, index numbers, reliability of statistics and tests of significance. *Fall and spring.* Cowden, Kelley, Palmer.

74 GENERAL ACCOUNTING (3). Prerequisite, junior-senior standing. Nonbusiness administration students only. Basis for understanding, evaluating, and interpreting accounting information. Accounting process, determination of cost and income, sources and uses of capital, reporting, changing price levels. *Fall and spring.* Staff.

81 MONEY AND BANKING (3). Banks and the Federal Reserve System; relations of money to income, output and employment; monetary policy. *Fall and spring.* Philbrook, Kreps, Flynn, Lapkin.

91 RESOURCES AND INDUSTRIES (3). Not open to students in the General College. Survey by industry analysis of selected social and economic problems related to the appraisal and utilization of world resources. An international studies course. *Spring.* Mouzon.

98 HONORS COURSE (3). Reading and preparation of an essay under the direction of a member of the faculty. *Fall.* Staff.

99 HONORS COURSE (3). Reading and preparation of an essay under the direction of a member of the faculty. *Spring.* Staff.

Courses for Graduates and Advanced Undergraduates

103 INTRODUCTION TO LINEAR ECONOMICS (Business Administration 103) (3). Prerequisite, senior standing. Topics in finite mathematics. Elementary application in linear programming and game theory. *Fall.* Ashby.

111 INTERNATIONAL RESOURCES AND NATIONAL POLICY (3). International resource problems which necessitate United States policy decisions. National policy and objectives; production potentials; and international security. *Fall.* Mouzon.

131 ECONOMIC THEORY (3). The determination of prices and the distribution of income in a free-enterprise system. *Fall and spring.* Philbrook.

135 ECONOMIC DEVELOPMENT IN THE UNITED STATES (3). Principal factors governing American economic expansion since 1800. *Fall or spring.* Parker.

136 ECONOMIC DEVELOPMENT IN WESTERN EUROPE (3). Main features of economic expansion under capitalism since 1700. *Fall or spring.* Parker.

141 PUBLIC FINANCE (Political Science 191) (3). Facts and theories of American public finance—federal, state, and local. *Fall and spring.* Spruill, Ashby.

143 PROBLEMS IN STATE AND LOCAL FINANCE (Political Science 193) (3). Prerequisite, Economics 141 or equivalent. Selected problems relating to the financing of state and local functions. *Spring.* Spruill, Ashby.

145 BUSINESS ORGANIZATION AND SOCIAL CONTROL (3). Recent developments and current trends in business organization; economic concentration; public policy-changing aims, structures, and processes. *Fall.* Heath.

151 THE AMERICAN TRANSPORTATION SYSTEM (3). A survey of the economic characteristics and basic problems of the several modes of transportation. *Fall and spring.* Blaine.

152 TRANSPORTATION AS A REGULATED INDUSTRY (3). Economic problems and policies under state and federal regulation. *Spring.* Blaine.

153 ECONOMICS OF PUBLIC UTILITIES (3). Theory and policies as applied to the power and communications industries. *Fall.* Blaine.

161 INTERNATIONAL ECONOMICS (3). An introduction to international trade, the balance of payments, and related issues of foreign economic policy. *Fall.* Ingram.

163 ECONOMIC DEVELOPMENT (3). Analysis of present efforts to increase the pace of economic growth in underdeveloped areas; comparisons with the process of development in economically advanced countries. Case studies may be drawn from Asia, Latin America, and Africa. *Spring.* Ingram.

171 FUNDAMENTALS OF STATISTICAL THEORY (3). Prerequisite, Economics 70 or equivalent. Polynomial and exponential trends; moving seasonal. Index numbers. Estimation; power of a test; differences among variances and means; binomial distribution; chi-square. Multiple and partial correlation; rank correlation. *Fall.* Cowden.

172 INTERMEDIATE STATISTICS (3). Prerequisite, Economics 171 or equivalent. Orthogonal polynomials; growth curves; weighted moving averages. Theory of index numbers. Analysis of variance and covariance. Poisson distribution; hypergeometric distribution. Compact methods in correlation. (1962-1963 and alternate years.) *Spring.* Cowden.

173 QUALITY CONTROL BY STATISTICAL METHODS (Business Administation 135) (3). Prerequisite, Economics 70 or equivalent. (1961-1962 and alternate years.) *Spring.* Cowden.

174 ECONOMETRICS (3). Prerequisites, Economics 171 and Mathematics 33 or 109, or equivalents. The application of statistical methods to economic problems. Topics include measurement of demand and costs and macroeconomic models. *Fall.* Hamburger.

182 MATHEMATICAL ECONOMICS (Statistics 182) (3). Prerequisite, advanced calculus; corequisite, matrix theory. (1962-1963 and alternate years.) *Fall.* Hotelling.

183 ADVANCED MATHEMATICAL ECONOMICS (Statistics 183) (3). Prerequisites, Economics 182 and Mathematics 141. (1962-1963 and alternate years.) *Spring.* Hotelling.

185 BUSINESS CYCLES (3). Prerequisite, Economics 81 or equivalent. The nature and causes of business cycles and fluctuations in employment. The means of combating inflation and depression. *Fall.* Lee.

191 AN INTRODUCTION TO THE LABOR PROBLEM (3). An over-all survey of the field of labor. *Fall and spring.* Guthrie, Johannesen, Brown.

192 COLLECTIVE BARGAINING (3). Prerequisite, Economics 191 or equivalent. This course deals with the procedures and subject matter of collective bargaining. *Fall and spring.* Guthrie.

193 HISTORY OF THE LABOR MOVEMENT (3). Prerequisite, Economics 191 or equivalent. A history of the labor movement in the United States, with special reference to its economic significance. *Fall.* Guthrie.

194 SOCIAL INSURANCE (3). Prerequisite, Economics 191 or equivalent. Social insurance and its role in modern industrial life. (1962-1963 and alternate years.) *Spring.* Guthrie, Fein.

195 COMPARATIVE ECONOMIC SYSTEMS (3). A review of the basic institutions of our American economic system and a comparison with other existent or proposed economic systems. *Fall.* Fein, Blackman.

197 GOVERNMENT AND BUSINESS (Political Science 197) (3). The regulation and control of business by government. Constitutional provisions, the anti-trust laws, public utilities, taxation, labor laws, and transportation are the fields explored. *Spring.* Carter.

Courses for Graduates

200 ADVANCED MICRO-ECONOMIC THEORY (3). Theories of utility and demand. Theories of competition, market structure and equilibrium. *Fall.* Pfouts.

201 ADVANCED MACRO-ECONOMIC THEORY (3). Concepts and measurements of national income. Determination of national income. *Spring.* Ashby, Hamburger.

202 WELFARE ECONOMICS (3). Prerequisite, Economics 200 or equivalent. Topics in the theory of economic welfare. (1961-1962 and alternate years.) *Spring.* Pfouts.

203 LINEAR PROGRAMMING (Business Administration 203) (3). Prerequisite, Economics (Business Administration) 103 or equivalent. Topics in linear programming and game theory. (1961-1962 and alternate years.) *Fall.* Ashby, Hamburger.

211 ADVANCED COMMODITY ECONOMICS (3). An analysis of the supply and demand conditions of selected commodities with special reference to commodity control schemes. *Spring.* Mouzon.

235 GENERAL ECONOMIC HISTORY (3). Pre-industrial societies, early stages of industrial growth, and growth of the world economy in the nineteenth century. *Fall.* Parker.

236 MODERN ECONOMIC HISTORY (3). Prerequisite, Economics 235 or permission of the instructor. Economic change in modern Western societies. Comparative study of growth in Europe and North America. *Fall.* Parker.

241 ADVANCED PUBLIC FINANCE (3). Prerequisite, Economics 141 or equivalent. Theory of public finance: criteria, procedures, instruments, and operation. *Fall.* Ashby.

245 ADVANCED BUSINESS ORGANIZATION AND SOCIAL CONTROL (3). Prerequisite, Economics 145 or equivalent. Extensive readings in the literature are required. Emphasis is placed upon the role of economic analysis in dealing with problems in this field. (1962-1963 and alternate years.) *Spring.* Heath.

246 TRANSPORTATION PROBLEMS AND POLICIES (3). A course designed to develop an understanding of the major problems affecting the American transportation system and of the need for formulating effective transportation policies. *Fall.* Blaine.

251 HISTORY OF ECONOMIC THOUGHT (3 each). 251 surveys the develop-
252 ment of the principal static systems of economic analysis; 252 surveys the development of dynamic theories and systems. *Fall and spring.* Heath.

261 INTERNATIONAL ECONOMICS (3). Prerequisite, permission of the instructor. The theory of international values; comparative advantage and the gains from trade; alternative routes to adjustment in the balance of payments; capital movements. *Fall.* Ingram.

262 THEORY OF INTERNATIONAL TRADE (3). Prerequisite, Economics 261 or equivalent. Selected topics in the theory of international trade. *Spring.* Ingram.

281 MONETARY THEORY (3). The role of money in the determination of aggregate demand, the price level, and employment. *Fall.* Philbrook.

282 CENTRAL BANKING AND MONETARY POLICY (3). Prerequisite, Economics 81 or equivalent. The objectives, structure, functions, and operations of central banks; and the formation, impact and effectiveness of monetary policy. *Spring.* Kreps, Lapkin.

285 ANALYSIS OF ECONOMIC FLUCTUATIONS (3). Nature of economic fluctuations. Business cycle theory. Economic stabilization and growth. *Spring.* Lee.

291 LABOR ECONOMICS (3). Prerequisite, Economics 191 or equivalent. The implications of basic phenomena in the field of labor, wages, unemployment, etc. *Spring.* Brown.

292 LABOR-MANAGEMENT RELATIONS (Business Administration 292) (3). An advanced study of the procedure, subject matter and legal framework of collective bargaining. *Spring.* Guthrie.

294 POLICIES AND PRACTICES IN LABOR DISPUTE SETTLEMENT (3). Prerequisite, Economics 191 or equivalent. Special consideration will be given to economic implications and resultant effects upon the public interest. (1961-1962 and alternate years.) *Spring.* Guthrie.

295 COMPARATIVE ECONOMIC SYSTEMS (3). Prerequisite, Economics 195. A theoretical analysis of alternative economic systems. *Spring.* Fein.

296 SOVIET ECONOMIC PLANNING (3). A study of the theory and practice of economic planning in the Soviet Union with emphasis on current methods of allocating resources and controlling economic activities. *Fall.* Blackman.

297 SOVIET ECONOMIC GROWTH (3). Measurement and analysis of the Soviet national product during the period of the Five-Year Plans with attention to emerging patterns and possible future rates of growth. *Spring.* Blackman.

335 SEMINAR IN ECONOMIC HISTORY (3). Relation of economic history to economics; history of work in the field. Current problems and techniques of study and research. *Fall and spring.*[6] Parker.

341 RESEARCH IN PUBLIC FINANCE (3). Prerequisite, permission of the instructor. Open to qualified graduate students to make intensive studies in particular fields. *Fall and spring.*[6] Ashby.

6. Equivalent of three hours a week.

346 SEMINAR IN TRANSPORTATION (3). Prerequisite, permission of the instructor. A course designed to permit selected graduate students to make an intensive study of specific problems in transportation. *Spring.*[6] Blaine.

351 SEMINAR IN THE HISTORY OF ECONOMIC THOUGHT (3). Prerequisite, permission of the instructor. Advanced study of economic analysis beyond the scope of Economics 251 and 252. *Fall and spring.*[6] Heath, Philbrook.

361 SEMINAR IN INTERNATIONAL ECONOMICS (3). Prerequisite, Economics 262 or equivalent. A directed reading and research course. *Spring.*[6] Ingram.

371 RESEARCH IN ECONOMIC STATISTICS (3). Prerequisite, permission of the instructor. *Spring.*[6] Cowden.

381 SEMINAR IN MONEY AND EMPLOYMENT (3). Prerequisite, permission of the instructor. The controversy with respect to money, interest, wages, and employment. *Spring.*[6] Philbrook.

385 SEMINAR IN ECONOMIC FLUCTUATIONS (3). Prerequisite, permission of the instructor. A course for mature students interested in advanced study of economic fluctuation and growth. *Spring.* Lee.

391 SEMINAR IN LABOR (3). Prerequisite, permission of the instructor. This course offers mature students an opportunity to carry their investigations of significant subject matter beyond the limits of the formal course offerings. *Fall and spring.*[6] Guthrie, Johannesen.

396 SEMINAR IN SOVIET ECONOMICS (3). Prerequisite, permission of the instructor. Studies of selected problems of the Soviet economy and related aspects of Soviet economic thought. Seminar members are expected to present reports on assigned research topics. *Fall.* Blackman.

399 SEMINAR (3). Prerequisite, permission of the instructor. Individual research in a special field under direction of a member of the Department. *Fall and spring.*[6]

6. Equivalent of three hours a week.

SCHOOL OF EDUCATION

Professors: ARNOLD PERRY, *Dean,* ARTHUR MELVILLE JORDAN,[1] ARNOLD KIMSEY KING, J. MINOR GWYNN, WILLIAM JOHN MCKEE,[1] PRESTON COOKE FARRAR,[1] CARLTON ESTEY PRESTON,[1] GEORGE EDWARD SHEPARD, O. K. CORNWELL, GUY B. PHILLIPS,[1] WILLIAM DECATUR PERRY, RICHARD ELMER JAMERSON, W. CARSON RYAN,[2] WILLIAM HENRY PEACOCK, CARL F. BROWN, THELMA GWINN THURSTONE,[3] SAMUEL M. HOLTON, EDWARD C. MERRILL, JR.,[4] DONALD G. TARBET

Associate Professors: E. MARVIN ALLEN, CLYDE E. MULLIS, WALTER W. RABB, RUTH WHITE FINK, JOHN B. CHASE, ROY E. SOMMERFELD, LUTHER R. TAFF, CARL S. BLYTH, NEILL A. ROSSER, R. NEILL SCOTT, NEAL H. TRACY, ANNIE LEE JONES

Assistant Professors: MARY FRANCES KELLAM, RUTH I. PRICE, BEN E. FOUNTAIN, JR.,[4] FRANCES B. HOGAN, HARDWICK WILTON HARSHMAN, R. STERLING HENNIS

Instructors: MURPHEY DALE RANSON, MICHAEL Z. RONMAN, DONALD E. SKAKLE, SIM OWENBEY WILDE, JR.

Lecturers: WILLIAM G. SLATTERY, NORMAN D. BOWERS, OZRO LUKE DAVIS, JR., STACY KNIGHT EBERT, HENRY H. HILL

1. Professor, Emeritus.
2. Kenan Professor, Emeritus.
3. Absent on leave, 1961-1962.
4. Resigned, August 31, 1961.

Part-time Instructors: HELEN DUGAN ALLEN, FRANCES BRIGGS, MONIQUE BROCKMANN, JOSEPH W. CONGLETON, JR., A. B. COMBS, FRED EASON, LOIS EDINGER, Y. LEONARD MEDLIN, WILLIAM PALMER, RICHARD D. SHAFFER
Teaching Fellow: AMBROSE AUGUSTINE CLEGG, JR.

General Information

Students who plan to meet the requirements for a teaching certificate in Elementary Education or Secondary Education are under the joint direction of the School of Education and the respective subject matter departments.

Students interested in preparing to teach should consult the Dean of the School of Education, who will give information about the requirements in various teaching fields. Students are admitted to the School of Education for professional work at the beginning of the junior year.

The professional work in preparation for teaching must be taken over a two-year period. For that reason juniors should begin their work promptly in order to meet the requirements.

Courses for Undergraduates

NOTE: For undergraduate courses in physical education see the Department of Physical Education.

41 EDUCATION IN AMERICAN SOCIETY (3). *(The School).* This course or its equivalent is required of all prospective teachers. *Fall and spring.* Holton, Tarbet, Tracy, Scott, Allen, Brown, Hennis.

71 EDUCATIONAL PSYCHOLOGY (3). *(The Pupil).* Required of all prospective teachers. A course combining the most significant aspects of general and educational psychology, as they relate to the educational process. *Fall and spring.* Sommerfeld, Scott, Taff, Rosser, Bowers, Harshman.

THEORY AND PRACTICE OF TEACHING (15 each). *(The School, Teaching).* Open only to seniors in the School of Education. A study of school organization, appropriate methods and materials of teaching, and student teaching.

Note: Students deficient in quality points will not be admitted to the professional block program.

61 THEORY AND PRACTICE OF TEACHING IN THE ELEMENTARY SCHOOL *(Fall, Spring);*
81 THEORY AND PRACTICE OF THE TEACHING OF ENGLISH IN THE SECONDARY SCHOOL *(Fall, Spring);*
85 THEORY AND PRACTICE OF THE TEACHING OF SOCIAL STUDIES IN THE SECONDARY SCHOOL *(Fall, Spring);*
89 THEORY AND PRACTICE OF THE TEACHING OF MATHEMATICS IN THE SECONDARY SCHOOL *(Fall);*
91 THEORY AND PRACTICE OF THE TEACHING OF SCIENCE IN THE SECONDARY SCHOOL *(Spring);*
95 THEORY AND PRACTICE OF THE TEACHING OF LANGUAGE ARTS AND SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL *(Spring).*

METHODS AND MATERIALS IN TEACHING (3 each). (*Teaching*). These courses are taught six days per week during the first half of the semester indicated. Open only to seniors in the School of Education.

Note: Students deficient in quality points will not be admitted to the professional block program.

63 HEALTH AND PHYSICAL EDUCATION *(Spring);*
75 INSTRUMENTAL MUSIC *(Spring);*
76 CHORAL MUSIC *(Spring);*
77 ART *(Spring);*
83f FRENCH *(Spring);*
83g GERMAN *(Spring);*
83s SPANISH *(Spring);*
87 LATIN *(Spring);*
91 PUBLIC HEALTH *(Spring).*

STUDENT TEACHING (9 each). (*School, Pupil,* and *Teaching*).

Student teaching is designed to emphasize learnings in the three areas of *The School, The Pupil,* and *Teaching,* as outlined in the plan of the professional courses. It is conducted on a full-time basis during the second half of the semester indicated and is carried out under University supervision in cooperating public schools in the state. Open only to seniors in the School of Education.

64 HEALTH AND PHYSICAL EDUCATION *(Spring);*
78 INSTRUMENTAL MUSIC *(Spring);*
79 CHORAL MUSIC *(Spring);*
80 ART *(Spring);*
84f FRENCH *(Spring);*
84g GERMAN *(Spring);*
84s SPANISH *(Spring);*
88 LATIN *(Spring);*
94 PUBLIC HEALTH *(Spring).*

72a CHILD GROWTH AND DEVELOPMENT (3). (*The Pupil*). Required of all prospective elementary school teachers. This course meets six hours a week during the first half of the semester in which student teaching is done. *Fall and spring.* Scott, Sommerfeld, Ebert, Rosser, Jones.

72b ADOLESCENT GROWTH AND DEVELOPMENT (3). (*The Pupil*). Required of all prospective secondary school teachers. To be taken during the first half of the semester in which student teaching is done. *Each semester.* Scott, Taff, Sommerfeld, Rosser, Bowers, Harshman.

99 THE SECONDARY SCHOOL (3). (*The School*). This course meets six days each week during the first half of the semester in which student teaching is done. Open only to seniors in the School of Education majoring in health and physical education, instrumental music, choral music, art, French, German, Spanish, Latin, public health. *Spring.* Gwynn, Holton, Tarbet, Chase, King, Tracy, Bowers, Davis, Hennis.

Courses for Fifth Year Program

Following courses are open only to students in the Fifth Year Program or students with a bachelor's degree.

51 EDUCATIONAL FOUNDATIONS (6). (*The School, The Pupil*). *Summer.*

THEORY AND PRACTICE OF TEACHING (6 each). *Summer.*

S81 THEORY AND PRACTICE OF THE TEACHING OF ENGLISH IN THE SECONDARY SCHOOL;

S83f THEORY AND PRACTICE OF THE TEACHING OF FRENCH IN THE SECONDARY SCHOOL;

S83g THEORY AND PRACTICE OF THE TEACHING OF GERMAN IN THE SECONDARY SCHOOL;

S83s THEORY AND PRACTICE OF THE TEACHING OF SPANISH IN THE SECONDARY SCHOOL;

S85 THEORY AND PRACTICE OF THE TEACHING OF SOCIAL STUDIES IN THE SECONDARY SCHOOL;

S87 THEORY AND PRACTICE OF THE TEACHING OF LATIN IN THE SECONDARY SCHOOL;

S89 THEORY AND PRACTICE OF THE TEACHING OF MATHEMATICS IN THE SECONDARY SCHOOL;

S91 THEORY AND PRACTICE OF THE TEACHING OF SCIENCE IN THE SECONDARY SCHOOL;

S95 THEORY AND PRACTICE OF THE TEACHING OF LANGUAGE ARTS AND SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL.

NOTE: Fifth Year students may register for the appropriate Theory and Practice course for 9 additional hours during the field experience in the fall or spring semesters for a total of 15 semester hours.

Courses for Graduates and Advanced Undergraduates

Undergraduate students who are not in the School of Education must get the permission of the dean to enroll in these courses.

Attention is called to courses listed under psychology, sociology, physical education, dramatic art, and other departments as of particular importance in present-day preparation of teachers and educational administrators. For advanced courses in physical education see the Department of Physical Education.

For graduate courses for teachers and school administrators offered on Saturday at Chapel Hill see separate announcements.

NOTE: Most of the graduate courses in education are also available in one or both of the two terms of the summer session. See the catalogue of the Summer Session.

101 EDUCATIONAL ADMINISTRATION (3). *Fall.* Tracy, Tarbet.

105 GUIDANCE IN THE SCHOOL (3). *Fall.* W. D. Perry, Tarbet, Taff, Scott.

110 PHILOSOPHY OF MODERN EDUCATION (3). *Fall.* Holton, King, Rosser.

120 MUSIC EDUCATION IN THE HIGH SCHOOL (3). A study of the following: high school music curriculum, scheduling music activities, goals of music study, music rooms and equipment, rehearsal techniques, the music library, testing and guidance programs in music, evaluation of new materials, and musical productions and festivals. *Summer session only.* Carter (of the Department of Music).

121 INVESTIGATIONS AND TRENDS IN MUSIC EDUCATION (3). A review of recent studies dealing with: terminal music education goals, college preparatory goals, comparative music education, the psychology of music, private music study in the public school, the role of folk music in education, and popular music in the classroom. Open to qualified teachers of music only. *Summer session only.* Carter (of the Department of Music).

132 FUNCTION AND STRUCTURE OF DISTRIBUTIVE EDUCATION (3). *Summer session only.* Slattery.

133 SUPERVISION OF THE COOPERATIVE DISTRIBUTIVE EDUCATION PROGRAM (3). *Summer session only.* Slattery.

135 AUDIO-VISUAL INSTRUCTION: TECHNIQUES AND MATERIALS (3). *Spring.* Tarbet.

142 EUROPEAN FOUNDATIONS OF MODERN EDUCATION (History 130) (3). *Fall.* King.

143 SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES (History 170) (3). *Spring.* King, Holton.

146 CONTEMPORARY ISSUES AND TRENDS IN EDUCATION (3). *Spring.* King, Gwynn, A. Perry, Holton, Bowers, Davis.

152 THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3). *Fall.* Brown, Jones.

154 THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3). *Spring.* Holton, Brown, Jones.

155 NATURAL SCIENCE IN THE ELEMENTARY SCHOOL (3). *Spring.* Chase, Brown.

156 ARITHMETIC IN THE ELEMENTARY SCHOOL (3). *Spring.* Brown, Jones.

160 CURRICULUM CONSTRUCTION (3). Open to seniors and graduate students with 15 semester hours of credit in education. *Fall and spring.* Gwynn, Tarbet, Chase.

161 ELEMENTARY EDUCATION IN THE UNITED STATES (3). *Fall.* Brown, A. Perry, Jones, Davis.

165 IMPROVEMENT IN READING (3). *Spring.* Brown, Sommerfeld, Jones.

171 GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD (3). Child and adolescent development. *Fall and spring.* Sommerfeld, Scott, Rosser, Bowers, Harshman.

172 THE PROBLEMS OF MALADJUSTMENT AMONG CHILDREN (3). *Spring.* W. D. Perry, Rosser.

174 USE AND INTERPRETATION OF EDUCATIONAL TESTS AND MEASUREMENTS (3). *Fall.* Sommerfeld, Bowers, Rosser.

176 MENTAL HYGIENE IN TEACHING (3). Prerequisites, introductory courses in psychology and education. *Spring.* Scott, Sommerfeld, Taff, Rosser.

180 INTRODUCTION TO THE STUDY OF EXCEPTIONAL CHILDREN (Psychology 180) (3). *Fall.* Harshman, Thurstone.

181 TEACHING THE MENTALLY HANDICAPPED CHILD (3). *Summer session only.* Harshman, Thurstone.

182 THE GIFTED CHILD IN SCHOOL AND SOCIETY (3). *Spring.* Harshman, Thurstone.

183 PRINCIPLES OF SPEECH CORRECTION (3). *Summer session only.* Morgan (of the Department of English).

184 CLINICAL PROCEDURES IN SPEECH CORRECTION (3). *Summer session only.* Morgan (of the Department of English).

185 PSYCHOLOGY OF MENTAL RETARDATION (3). Prerequisite, Education 180; Education 174 or equivalent or permission of the instructor. The nature and cause of mental deficiency with some indications as to the characteristics and social control of mental defectives. Harshman.

196 THE JUNIOR HIGH SCHOOL (3). *Fall.* Gwynn, Holton, Tarbet, Rosser.

197 SOCIAL POLICY AND EDUCATION (3). *Spring.* King, Gwynn.

199 SECONDARY EDUCATION IN THE UNITED STATES (3). *Fall and spring.* King, Gwynn, Tarbet, Holton, Chase, Tracy, Bowers, Davis.

Courses for Graduates

201 PROCEDURES IN EDUCATIONAL RESEARCH (3). *Spring.* King, Sommerfeld, Rosser, Bowers.

203 STATISTICAL METHODS IN EDUCATION (3). *Spring.* Tracy, Bowers, Sommerfeld.

204 TECHNIQUES IN EDUCATIONAL LEADERSHIP (3). *Fall.* Tracy, A. Perry.

205 TECHNIQUES IN COUNSELING (3). Prerequisites, appropriate psychology courses and Education 105. *Spring.* W. D. Perry, Taff, Scott.

206 THE INTERPRETATIONS AND USE OF EDUCATIONAL AND OCCUPATIONAL MATERIALS (3). Prerequisites, practical experience and at least two years of work in education and psychology. *Fall.* W. D. Perry, Taff.

207 STUDENT PERSONNEL ADMINISTRATION (3). Prerequisites, appropriate psychology courses and Education 205. W. D. Perry, Taff.

208 STATE AND COUNTY SCHOOL ORGANIZATION (3). Prerequisite, Education 101 or equivalent. Tracy, A. Perry.

211 SUPERVISED PRACTICUM IN GUIDANCE (3). Prerequisites, Education 105, 205, 274, or permission of the instructor. *Spring.* W. D. Perry, Taff.

224 (See under Department of Physical Education.)

225 (See under Department of Physical Education.)

230 TECHNIQUES OF LEADERSHIP DEVELOPMENT IN DISTRIBUTIVE EDUCATION (3). *Summer session only.* Slattery.

231 SUPERVISION OF THE ADULT PROGRAM IN DISTRIBUTIVE EDUCATION (3). *Summer session only.* Slattery.

245 COMPARATIVE EDUCATION (3). *Summer session only.* Holton, King.

247 HIGHER EDUCATION IN THE UNITED STATES (3). Prerequisite, Education 142, or Education 143, or History 71-72, or the equivalent. The development and present status of higher education in the United States: (1) its organization, administration, support, curriculum, faculty and student relations; (2) the growth of denominational colleges, the state universities, and the Land-Grant Colleges under the Morrill Acts; (3) the expansion of graduate and professional education; and (4) the junior and community college movement. *Fall.* King, Gwynn, Holton.

265 INVESTIGATIONS IN READING (3). *Spring.* Brown, Sommerfeld, Jones.

266 DIAGNOSIS AND TREATMENT OF READING DIFFICULTIES (3). Prerequisite, Education 165 or permission of the instructor. A study of the causes of reading difficulties, their diagnosis and correction. In a clinical practicum, the student will observe and participate in the diagnosis and correction of reading disability cases under supervision. *Summer session only*. Brown.

267a EDUCATION WORKSHOP (3 or 6). Open by special permission to a limit-
267b ed number of qualified graduate students who have specific interests or problems that are adapted to staff and local resources available. Graduate staff; visiting faculty.

271 PROBLEMS IN EDUCATIONAL PSYCHOLOGY I (3). Individual differences and problems of conduct. *Fall*. Sommerfeld, Rosser, Thurstone, Bowers.

272 PROBLEMS IN EDUCATIONAL PSYCHOLOGY II (3). Prerequisite, one and preferably two courses in educational and developmental psychology. Psychology of learning (theoretical aspects) and psychology of learning (practical applications). *Spring*. Sommerfeld, Rosser, Thurstone, Bowers.

273 THEORY AND USE OF INDIVIDUAL INTELLIGENCE TESTS (3). Prerequisites, Education 174 or equivalent and permission of the instructor. A study of intelligence and individual intelligence testing with emphasis on clinical experience with the Stanford-Binet and Wechsler scales. *Summer session only*. Sommerfeld, Rosser, Thurstone, Harshman.

274 THE USE OF TESTS IN THE ANALYSIS OF THE INDIVIDUAL (3). Prerequisite, Education 105. The individual inventory and the use of tests in the analysis of the individual. The purchase of tests may be required. *Spring*. W. D. Perry, Taff, Scott, Sommerfeld, Bowers.

275 ADMINISTRATIVE ASPECTS OF THE GUIDANCE PROGRAM (3). Prerequisite, Education 105. Tarbet, W. D. Perry, Scott, Taff.

277 ADVANCED THEORY AND PRACTICE IN EDUCATING THE SPEECH HANDICAPPED (3). *Summer session only*. Visiting faculty.

291 INVESTIGATIONS AND TRENDS IN TEACHING NATURAL SCIENCE (3). *Fall*. Chase.

292 THEORY AND PRACTICE IN SCHOOL ADMINISTRATION (6). Prerequisites, North Carolina Class A Certificate, Education 101, and a minimum of one year of teaching experience. A study of administrative theory as a guide to performing the functions and tasks of the school administrator. Specific orientations are provided toward the positions of elementary principalship, the school supervisor, and the superintendency. This is the basic course in the supervision and administration of the public schools. Required for school principals, superintendents, and other administrative and supervisory personnel. A. Perry, Tracy, Tarbet.

293 PROBLEMS OF EDUCATIONAL LEADERSHIP (6). Prerequisites, North Carolina Class A Certificate, Education 101, and a minimum of one year of teaching experience. The identification and analysis of the major technical, procedural, and human relations problems in the school and its environment; a definition of leadership roles in relation to these problems; the assessment of the student's ability to demonstrate effective leadership performance. Tracy, A. Perry, Tarbet.

294 TECHNICAL STUDIES ON PUBLIC SCHOOL FINANCE, PERSONNEL, AND FACILITIES (6). Prerequisites, Graduate Studies, Education 101, Education 292, Education 293. A practicum in technical information, skills, and materials relative to planning financing, maintaining and staffing school facilities and program. Tracy, A. Perry, Tarbet.

295 ADVANCED SEMINAR AND SUPERVISED INTERNSHIP IN EDUCATIONAL ADMINISTRATION (6). Prerequisite, three semesters of graduate work including Education 101, Education 292, Education 293, Education 294. Supervised indentification and analysis of problems of educational administration in selected school situations. A. Perry, Tarbet, Tracy.

298 SUPERVISION OF INSTRUCTION (3). *Spring.* A. Perry, Gwynn, Jones.

303 PROBLEMS IN EDUCATIONAL ADMINISTRATION (3 or more). Prerequisites, Education 101 or equivalent and one other course in educational administration. *Fall and spring.* Tracy, A. Perry, Gwynn, Tarbet.

304 PROBLEMS IN EDUCATIONAL MEASUREMENT (3 or more). Prerequisite, Education 174. *Fall and spring.* Sommerfeld, Rosser, Bowers, Thurstone.

305 PROBLEMS IN GUIDANCE AND PERSONNEL WORK (3 or more). Prerequisite, two graduate courses in guidance. *Fall and spring.* W. D. Perry, Taff.

341 FOUNDATIONS OF MODERN EDUCATION (3 or more). Prerequisites, Education 142 and 143 or equivalent. Holton, King.

347 PRINCIPLES AND PRACTICES OF COLLEGE TEACHING (3). A seminar dealing with planning, techniques of instruction, and methods of evaluation in the college classroom. Emphasis is placed on pertinent research and trends and practices. *Fall.* Holton, Gwynn.

350 PROBLEMS IN ELEMENTARY EDUCATION (3 or more). Prerequisites, two courses in graduate education. *Fall and spring.* Brown, Jones, Davis.

360 PROBLEMS IN THE CURRICULUM (3 or more). Prerequisites, two courses in graduate education. *Fall and spring.* Gwynn, Chase, Holton.

375 THESIS COURSE (3 or more). *Fall and spring.* Members of the graduate faculty.

376 SEMINAR IN EDUCATION (3). Prerequisites, two courses in graduate education. *Fall and spring.* Members of the graduate faculty.

398 PROBLEMS IN SECONDARY EDUCATION (3 or more). Prerequisites, two graduate courses in secondary education. *Fall and spring.* Gwynn, Holton, Chase, Tarbet, Tracy, Bowers, Davis.

DEPARTMENT OF ENGLISH

Professors: C. H. HOLMAN,[1] *Chairman,* A. P. HUDSON,[1] DOUGALD MACMILLAN,[1] A. C. HOWELL, R. P. BOND,[2] RAYMOND ADAMS,[3] W. A. OLSEN, H. K. RUSSELL, WILLIAM WELLS,[1] R. B. SHARPE, C. P. LYONS,[1] N. E. ELIASON, E. W. TALBERT, J. O. BAILEY, N. W. MATTIS, R. B. HOUSE, G. F. HORNER, G. M. HARPER, L. A. COTTEN

Associate Professors: E. H. HARTSELL, J. R. GASKIN, R. B. VOITLE,[4] P. G. PHIALAS, LUCIA MORGAN, O. B. HARDISON, JR.

Assistant Professors: S. G. BARNES, D. W. PATTERSON, F. H. MACINTOSH, J. B. MERIWETHER, A. B. STRAUSS, C. E. EDGE

Acting Assistant Professor: W. A. COLES

Lecturer: JESSIE REHDER

Instructors: T. Y. GREET, D. K. SPRINGEN, SIEGFRIED WENZEL, MAURICE BASSAN, DAVID Y. HUGHES, WELDON THORNTON, J. M. MUNRO, J. D. MASON, J. A. HART, J. W. TUTTLETON, FLORINE M. VIVERETTE

Part-time Instructors: B. B. ADAMS, E. F. BARGAINNIER, LOUISE K. BARNETT, MOLLY BRADSHAW, E. R. CHEEK, NANCY H. COMBES, R. E. DURNING, MARY D. FARNHAM, R. M. FIGG, W. J. FREE, J. E. GILL, J. J. HAYDOCK, C. P. HEATON, J. M. HELDMAN, S. P. HINES, IDA M. HOLLOWELL, J. K. HOUCK, C. L. JENNINGS, E. H. JOHANSSON, NANCY JOYNER, ISABEL A. LOCKWOOD, ELSIE G. MINTER, MARY K. PATTERSON, W. H. RAINES, F. J. RINALDI, R. F. ROBINSON, PRISCILLA ROETZEL, J. P. STARLING, J. H. STERN, PHYLLIS THOMPSON, JUNE M. TUTTLETON, P. G. VAN EGMOND, P. T. WADE, V. A. WARD, JR., T. C. WARE, J. W. WEAVER, HELEN M. WEBBER, H. F. WEST

Teaching Fellows: CAROL HUBERT, C. B. LOWER, D. T. RENGUETTE

Graduate Assistants: D. W. GUNN, ELIZABETH MOORE, CLAUDIA MORRISON

Courses for Undergraduates

Prerequisites: English 1 and 2 are prerequisite to all advanced courses offered by the English department. Juniors will not be admitted to courses for advanced undergraduates except by permission.

Majors in English in the College of Arts and Sciences: A student choosing English as his major field should take (a) English 58; (b) two of the following: English 51, 52, 54, 60, 64, 66; (c) one of the following: English 72, 73, 81; (d) one of the following: English 36, 38, 40, 41, 43, 45, 63, 147; (e) one to three courses chosen as free electives from the advanced courses offered by the Department (courses numbered from 30 to 199, with the exception of 32 and 33). In accordance with University regulations a student must have a grade of *C* or better in at least eighteen semester hours in the major.

Majors in English in the School of Education: A student who desires to secure a certificate in the public high schools with a major in English should consult the School of Education for the courses in education and for the minor. (See "School of Education" in Part III.)

1. Kenan Professor.
2. Kenan Professor; absent on leave, fall semester, 1961-1962.
3. Absent on leave, fall semester, 1961-1962.
4. Absent on leave, spring semester, 1962.

The English requirements are: (a) English 30; (b) English 58; (c) English 36; (d) English 81; (e) Speech 40 or 41; (f) one of the following: English 43, 45, 51, 52, 54, 60, 63, 64, 66, 72, 73, 78; (g) one elective in English or American literature. In accordance with University regulations a student must have a grade of *C* or better in at least eighteen semester hours in the major.

Minors in English in the School of Education: Students who choose a minor program in English will take: (a) English 58; (b) English 38; (c) English 81; (d) one of the following: English 66, 72, 73, 74, or by permission an elective in English.

Honors in English: See College of Arts and Sciences, Part III.

Honors in Writing: Able and promising students in the Department of English may work toward a degree with Honors in Writing. At the end of the junior year application for admission should be made to the director of the departmental program. Running for a year and carrying a total of three semester hours (1½ each semester), the Honors Course is counted as an additional course in the major, and it may not be substituted for allied or nondivisional requirements. Although no other writing course is required as a prerequisite, it is suggested that the student take at least one. The requirements follow: (a) proven ability and high academic standing (at least a *B* average in the major); (b) successful completion of approved project; (c) satisfactory participation in scheduled seminars and conferences.

NOTE: Courses in Speech follow immediately after English 99. Courses for graduate students follow the Speech courses.

1 ENGLISH COMPOSITION AND RHETORIC (3). Required of all students except those qualifying by placement test for English 2. *Fall and spring.* Horner, *Director;* staff.

2 ENGLISH COMPOSITION AND RHETORIC (3). Required of all students. *Fall and spring.* Horner, *Director;* staff.

21 ENGLISH LITERATURE (3). Prerequisite, English 2. Substantial readings in Chaucer, Shakespeare, and Milton. Required of all students in the General College. *Fall and spring.* Horner, *Director;* staff.

22 ENGLISH LITERATURE (3). Sophomore elective. Prerequisite, English 2. Substantial readings in Swift, Wordsworth, Browning, and Shaw. *Fall and spring.* Horner, *Director;* staff.

23 ENGLISH AND AMERICAN FICTION (3). Sophomore elective. Prerequisite, English 2. Readings in selected novels and short stories. *Fall and spring.* Horner, *Director;* staff.

26 ENGLISH AND AMERICAN LITERATURE (3). Sophomore elective. Prerequisite, English 2. Selected readings in contemporary British and American literature. *Fall and spring.* Horner, *Director;* staff.

30 ADVANCED COMPOSITION: THE TECHNIQUE OF EXPOSITION (3). Expository writing for students desiring practice in organizing and presenting material. *Fall.* Bailey; *spring.* Strauss.

32 ADVANCED COMPOSITION: BUSINESS WRITING (3). Concentration upon the business letter, memorandum, report, and oral presentations. This course cannot be counted toward an English major. *Fall.* Hartsell, MacIntosh, Greet; *spring.* MacIntosh, Tuttleton.

33 ADVANCED COMPOSITION: SCIENTIFIC WRITING (3). Prerequisite, permission of the instructor. To meet the needs of students in the sciences, through practice in writing explanations, descriptions, business letters, professional papers, and reports. This course cannot be counted toward an English major. *Fall.* Howell; *spring.* Barnes, MacIntosh.

34 CREATIVE WRITING I: INTRODUCTION TO THE SHORT STORY (3). Prerequisite, permission of the instructor. Class discussion of short stories, longer fiction, and general literary principles; technical training in the writing of original short stories. *Fall.* Rehder, Greet.

35 CREATIVE WRITING II (3). Prerequisite, permission of the instructor. An advanced course in imaginative writing for students who have had some previous experience in this field. *Spring.* Rehder.

36 ENGLISH GRAMMAR (3). A study of modern English grammar with special attention to such current problems as the confusion of grammatical terminology, attacks on traditional rules, conflict between prescriptive and descriptive grammar. The course is designed especially for prospective English teachers, but others may take it. *Fall.* Eliason, Gaskin; *spring.* Wenzel.

38 THE ENGLISH LANGUAGE (3). Present-day English, British and American, standard and dialectal—its historical background and development. The language as a whole is considered, i.e., vocabulary, pronunciation, spelling, etc.; grammar is treated only incidentally. *Fall.* Gaskin.

40 INTERPRETATION OF POETRY (3). Exploration of the significance of poetry for thought and human experience. Consideration of forms and substance. *Spring.* Lyons.

41 PRINCIPLES OF LITERARY ART (3). A study of the theories of literature through their application to specific English masterpieces. (Not offered in 1961-1962.)

43 THE ENGLISH NOVEL (3). The English novel in the eighteenth and nineteenth centuries. *Fall.* Russell, Strauss; *spring.* Edge.

45 THE ENGLISH DRAMA (3). The English drama from the beginning to 1900. *Fall.* Hardison.

51 ENGLISH LITERATURE OF THE MIDDLE AGES (3). English writing from the twelfth to the fifteenth centuries, exclusive of Chaucer. *Fall.* Wenzel.

52 CHAUCER (3). The development of Chaucer as a man and as an artist as revealed in certain minor poems, the *Troilus,* and most of *The Canterbury Tales. Fall and spring.* Wenzel.

54 ENGLISH LITERATURE OF THE RENAISSANCE (3). Poetry and prose of representative authors, including More, Wyatt, Sidney, Spenser, Raleigh, Bacon; with selected plays of Marlowe, Dekker, and Jonson. *Fall.* Wells, Phialas; *spring.* Wells, Phialas.

58 SHAKESPEARE (3). Study of about twenty representative comedies, histories, and tragedies. *Fall.* Wells, Lyons, Phialas, Sharpe; *spring.* Phialas, Wells, Talbert.

60 ENGLISH LITERATURE, 1616-1700 (3). Bacon, Donne, Herbert, Brown, Herrick, Dryden. *Spring.* Howell.

63 THE LITERARY ASPECTS OF THE BIBLE (3). The Old Testament and the New Testament will be taken up in alternate years—Old Testament, 1961; New Testament, 1962. *Spring.* Howell.

64 MILTON (3). The works of Milton studied in the light of the life, times, and culture of the poet. *Fall.* Voitle, Hardison; *spring.* Wells, Hardison.

66 PROSE AND POETRY OF THE CLASSICAL PERIOD (3). Addison, Steele, Swift, Pope, Johnson, Boswell, Gray, and Cowper. *Fall.* MacMillan; *spring.* Bond, MacMillan.

72 THE CHIEF ROMANTIC POETS (3). Wordsworth, Coleridge, Byron, Shelley, and Keats. *Fall.* Hudson, Harper; *spring.* Hartsell.

73 VICTORIAN LITERATURE (3). Major English writers, 1832-1890. *Fall.* Bailey; *spring.* Cotten.

78 ENGLISH LITERATURE, 1890-1920 (3). Hardy, Henley, Housman, Kipling, Wilde, Shaw, Conrad, Galsworthy, and the Irish Revival. *Fall and spring.* Barnes.

81 AMERICAN LITERATURE (3). Major authors from the beginning to 1890. *Fall.* Patterson, Bassan; *spring.* Bassan.

82 AMERICAN LITERATURE (3). Major authors from 1890 to the present. *Fall.* Mason, Patterson; *spring.* Adams, Patterson, Mason.

83 THE AMERICAN NOVEL (3). Representative American novels from 1850 to the present. *Fall.* Meriwether, Horner; *spring.* Meriwether, Patterson.

92 ENGLISH AND AMERICAN POETRY OF THE TWENTIETH CENTURY (3). *Fall.* Cotten; *spring.* Harper.

93 ENGLISH AND AMERICAN FICTION OF THE TWENTIETH CENTURY (3). *Fall.* Russell, Edge, Rehder, Greet; *spring.* Russell, Coles, Greet, Meriwether.

95 ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (3). *Spring.* Sharpe.

97 COURSE FOR HONORS (6). See the Program for Honors Work in the
98 College of Arts and Sciences. Reading and the preparation of an essay under the direction of departmental advisers.

99 HONORS IN WRITING (3). See description on page 54.

Courses in Speech

40 VOICE AND DICTION (3). Designed to establish good habits of speech by study of principles and analysis of the individual's voice, articulation, and pronunciation. Lectures, discussions, recordings, drill sessions, and conferences. *Fall.* Morgan; *spring.* Morgan, Springen.

41 ORAL INTERPRETATION OF LITERATURE (3). Emphasis on understanding and appreciation as preparation for oral reading. Vocal and articulatory weaknesses receive attention, but systematic training in the mechanics of speech is reserved for Speech 40. *Fall and spring.* Mattis.

44 PUBLIC SPEAKING (3). Composition and delivery of original speeches. Consideration of content, organization, style, delivery, and adaptation to the audience. Recordings and conferences. *Fall and spring.* Olsen, Mattis, Springen.

50 ADVANCED VOICE AND DICTION (3). Prerequisite, Speech 40 or permission of the instructor. A continuation of Speech 40, with close adaptation to the individual's needs. Detailed study of phonetics. Practice in oral reading, public speaking, and dramatic interpretation. Recordings, drills, and conferences. *Spring.* Morgan.

54 ADVANCED PUBLIC SPEAKING (3). Prerequisite, one course in Speech or permission of the instructor. A continuation of Speech 44. Composition and delivery of original speeches, including speeches for special occasions. Study of model speeches. Brief attention to discussion techniques and parliamentary procedure. *Spring.* Olsen.

Courses for Graduates and Advanced Undergraduates

NOTE: Except by permission juniors will not be admitted to these courses. Course numbers followed by *s* denote courses offered in the summer only.

130s CREATIVE WRITING IN PROSE (3).

136 MODERN ENGLISH (3). A study of modern English grammar and problems in teaching it. *Spring.* Eliason.

140s INTERPRETATION OF LITERATURE (3).

141 LITERARY CRITICISM (3). The principles which have animated classical, romantic, and realistic literature. (Not offered in 1961-1962.)

147 THE ENGLISH BALLAD (3). English and Scottish popular ballads and their survival in America, particularly in North Carolina. *Spring.* Hudson.

148 INTRODUCTION TO FOLKLORE (Folklore 185) (3). *Fall.* Hudson.

151s ENGLISH LITERATURE OF THE MIDDLE AGES (3).

152s CHAUCER (3).

154s ENGLISH LITERATURE OF THE RENAISSANCE (3).

155 ENGLISH DRAMA TO 1600 (3). Pre-Shakesperian drama, with preliminary consideration of the Latin drama of the medieval church. *Fall.* Talbert.

158s SHAKESPEARE (3).

161s ENGLISH DRAMA, 1600-1642 (3).

164s MILTON (3).

165 RESTORATION AND EIGHTEENTH-CENTURY DRAMA (3). A study of the drama from 1660 to 1780. *Spring.* MacMillan.

166s ENGLISH LITERATURE, 1700-1780 (3).

172s THE CHIEF ROMANTIC POETS (3).

174s MAJOR FIGURES IN VICTORIAN LITERATURE (3).

175 NINETEENTH-CENTURY DRAMA, ENGLISH AND AMERICAN (3). A survey of dramatic movements and writers from 1800 to 1900. (Not offered in 1961-1962.)

183s THE AMERICAN NOVEL (3).

188 SOUTHERN AMERICAN LITERATURE (3). (Not offered in 1961-1962.)

193s RECENT ENGLISH AND AMERICAN FICTION (3).

195s ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (3).

Courses for Graduates

237 OLD ENGLISH GRAMMAR AND READINGS (3). Primarily a linguistic course in Old English grammar, but time is devoted to surveying the prose of the period. *Fall.* Eliason.

238 HISTORY OF THE ENGLISH LANGUAGE (3). Prerequisite, English 237 or permission of the instructor. For students of linguistics and English literature; a study of the language mainly from the historical point of view, but other approaches are considered. *Spring.* Eliason.

240 INTERPRETATION OF POETRY (3). The issues of theoretical and practical criticism in the understanding and interpretation of poetry; their significance in teaching and scholarship. *Fall.* Lyons.

243 THE ENGLISH NOVEL (3). The English novel in the eighteenth and nineteenth centuries. *Spring.* Russell.

250 STUDIES IN OLD ENGLISH LITERATURE: BEOWULF (3). Prerequisite, English 237. A continuation of English 237, but with literary rather than linguistic emphasis. The whole body of Old English poetry is dealt with, *Beowulf* receiving special attention. *Spring.* Eliason.

251 MIDDLE ENGLISH LITERATURE (3). The literature of the period in relation to its social, political, and religious background. *Spring.* Gaskin.

252 CHAUCER (3). A reading of Chaucer's works with attention to critical and historical problems involved in their interpretation. *Fall.* Eliason.

254 ENGLISH LITERATURE OF THE SIXTEENTH CENTURY (3). A survey of the literature of the Elizabethan period, exclusive of the drama. *Fall.* Wells.

258 SHAKESPEARE: THE EARLY PLAYS (3). Emphasis on historical and critical problems presented by Shakespeare's works. *Fall.* Talbert.

259 SHAKESPEARE: THE LATE PLAYS (3). Emphasis on historical and critical problems presented by Shakespeare's works. *Spring.* Lyons.

260 ENGLISH LITERATURE, 1616-1700 (3). The non-dramatic literature of the period. *Fall.* Voitle.

261 ENGLISH DRAMA, 1600-1642 (3). Jacobean and Caroline drama, with emphasis on Jonson, Chapman, Webster, Beaumont, Fletcher, Massinger, and Ford. *Spring.* Sharpe.

264 MILTON (3). An intensive study of Milton's works and thought. *Fall.* Howell.

266 ENGLISH LITERATURE, 1700-1780 (3). The non-dramatic literature of the period. *Fall.* MacMillan.

272 ENGLISH LITERATURE, 1780-1832 (3). A survey of the Romantic period, with special attention to the major poets. *Fall.* Hudson.

273 VICTORIAN LITERATURE: PROSE (3). A survey of major English prose writers of the period. *Spring.* Bailey.

274 VICTORIAN LITERATURE: POETRY (3). A survey of major English poets of the period. (Not offered in 1961-1962.)

280 EARLY AMERICAN LITERATURE (3). A survey of the colonial, revolutionary, and early national periods, including Bryant, Irving, and Cooper. *Fall.* Horner.

281 AMERICAN LITERATURE, 1830-1855 (3). English 280 precedes this survey, but is not prerequisite. Poe, Hawthorne, Emerson, Thoreau, Lowell, and Transcendentalism. *Spring.* Horner.

282 AMERICAN LITERATURE, 1855-1900 (3). Chief authors: Melville, Whitman, Lanier, Dickinson, Twain, Howells, James; literary criticism; and the dominance of magazines. *Fall.* Holman.

283 THE AMERICAN NOVEL (3). The American novel from its beginning to the twentieth century. *Spring.* Holman.

291 RECENT ENGLISH AND AMERICAN CRITICISM (3). A survey of the principal critical movements in England and America from Arnold to the present. *Spring.* Hardison.

292 ENGLISH AND AMERICAN POETRY OF THE TWENTIETH CENTURY (3). *Spring.* Cotten.

293 ENGLISH AND AMERICAN FICTION OF THE TWENTIETH CENTURY (3). *Fall.* Meriwether.

295 ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (3). *Fall.* Sharpe.

298 BIBLIOGRAPHY AND METHODOLOGY (3). Required of all candidates for the A.M. and Ph.D. degrees. Designed to aid students in preparing term papers, theses, and dissertations, with attention to bibliographical guides, problems of literary research, and standard scholarly forms and procedures. *Fall.* MacMillan.

351 SEMINAR: STUDIES IN MEDIEVAL LITERATURE (3). Research in special problems in the literature of the Middle Ages. (Not offered in 1961-1962.)

354 SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (3). *Spring.* Talbert.

360 SEMINAR: STUDIES IN SEVENTEENTH-CENTURY LITERATURE (3). (Not offered in 1961-1962.)

366 SEMINAR: STUDIES IN EIGHTEENTH-CENTURY LITERATURE (3). *Spring.* Bond.

372 SEMINAR: STUDIES IN NINETEENTH-CENTURY ROMANTICISM IN ENGLAND (3). Two divisions in alternate years; Byron and Shelley problems; Wordsworth and Coleridge problems. *Spring.* Hudson.

373 SEMINAR: STUDIES IN VICTORIAN LITERATURE (3). *Fall.* Cotten.

381 SEMINAR: STUDIES IN AMERICAN LITERATURE (3). *Spring.* Horner.

390 SEMINAR: STUDIES IN TWENTIETH-CENTURY LITERATURE, ENGLISH AND AMERICAN (3). *Spring.* Jarrell.

395 SEMINAR: MODERN DRAMA (Dramatic Art 395) (3). *Fall.* Sharpe.

397 SPECIAL READINGS (3).

399 SPECIAL RESEARCH (3).

Attention is called to the courses in philology and advanced literary study offered in the departments of Classics (Latin Epigraphy, Latin Paleography), Comparative Literature, Germanic Languages (Gothic, Old and Middle High German, Old Saxon, Old Norse, etc.), and Romance Languages (Old French, Provençal, Old Irish, Old Spanish, Dante, etc.).

See also the Curriculum in Linguistics.

CURRICULUM IN FOLKLORE

DEAN OF THE GRADUATE SCHOOL, *Chairman*

Professors: A. P. HUDSON,[1] *Secretary,* U. T. HOLMES,[1] G. B. JOHNSON, J. E. KELLER, J. G. KUNSTMANN, WILTON MASON, S. A. STOUDEMIRE

This curriculum assembles the facilities of the University for those who desire a major or minor for the master's degree or a doctoral minor in folklore with a major in some related department, and mobilizes the pertinent graduate instruction in this field now being offered in such departments as English, Germanic Languages, Music, Romance Languages, and Sociology and Anthropology. Students having had an undergraduate major in any of these departments, and having had the prerequisite courses, are eligible to take work in this curriculum with a view to becoming candidates for higher degrees.

Courses for Graduates and Advanced Undergraduates

(For descriptions of courses below offered by the departments of Music, Romance Languages, and Sociology and Anthropology, see listings under department headings.)

103 FOLK MUSIC OF THE ORIENTAL AND EUROPEAN COUNTRIES (Music 103) (3). (1962-1963 and alternate years.) *Spring.* Mason.

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1. Kenan Professor.

104 FOLK MUSIC OF THE BRITISH ISLES AND THE UNITED STATES (Music 104) (3). (1961-1962 and alternate years.) *Spring.* Mason.

105 CELTIC: OLD IRISH (3). *On demand.* Holmes.

106 CELTIC: OLD WELSH (3). *On demand.* Holmes.

122 CULTURAL ANTHROPOLOGY (Anthropology 122) (Folklore 122) (3). *Fall.* Johnson.

123 ANTHROPOLOGY OF RELIGION (Anthropology 123) (3). (1961-1962 and alternate years.) *Fall.* Honigmann.

126 AFRICA: PEOPLES AND CULTURES (Anthropology 126) (3). Prerequisite, Folklore 185. *Fall.* Johnson.

127 NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (Anthropology 127) (3). Prerequisite, Folklore 185. (1962-1963 and alternate years.) *Spring.* Erasmus.

128 FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (Folklore 128) (3). Prerequisite, Folklore 185. (1962-1963 and alternate years.) *Spring.* Gulick.

129 PEOPLES OF OCEANIA (Anthropology 129) (3). Prerequisite, Folklore 185. (1961-1962 and alternate years.) *Fall.* Gulick.

132 LATIN AMERICAN CULTURE (Anthropology 132) (3). Prerequisite, Folklore 185. *Spring.* Erasmus.

135 THE NATURE OF CULTURE (Anthropology 135) (3). Prerequisite, Folklore 185. (Not offered in 1962-1963.) Staff.

147 THE ENGLISH BALLAD (English 147) (3). English and Scottish popular ballads and their survivals, particularly in North Carolina. *Spring.* Hudson.

185 INTRODUCTION TO FOLKLORE (Comparative Literature 185) (English 148) (Anthropology 185) (3). Definition and examples of folklore in general and its various categories. Collection, classification, and analysis of folklore materials. Bibliography. *Fall.* Hudson.

186 FOLK NARRATIVE (3). Study of origin, development, and dissemination of myths, legends, and folktales, with a survey of their use in masterpieces of world literature. *Spring.* Keller.

Courses for Graduates

(For descriptions of courses below offered by the departments of Music, Sociology and Anthropology, see listings under department headings.)

210 FOLK SOCIOLOGY (Sociology 210) (Folklore 210) (3). Prerequisite, Folklore 185. (Not offered in 1962-1963.) *Fall.* George Simpson.

230 CULTURE CONTACTS AND ACCULTURATION (Anthropology 230) (Sociology 230) (Folklore 230) (3). Prerequisite, Folklore 185. *Spring.* Johnson.

270 GENERAL INTRODUCTION TO GERMAN VOLKSKUNDE (German 270) (Folklore 270) (3). A reading knowledge of French is desirable but not necessary. A survey of the fields of German literary and non-literary *Volkskunde* with special attention to *Märchen* and *Sprichwort*. *Fall.* Kunstmann.

272 THE GERMAN VOLKSLIED (German 272) (Folklore 272) (3). Survey of German *Volkslied* studies from the eighteenth century to the present; theories concerning the provenance of the *Volkslied;* special attention to the interrelation of *Volkslied* and *Kunstlied. Spring.* Kunstmann.

342 343 SEMINAR IN GERMAN VOLKSKUNDE (German 342, 343) (Folklore 342, 343) (3 each). *On demand.* Kunstmann.

395 RESEARCH (3). Research in a special field under the direction of members of the staff.

FRENCH

(See Romance Languages)

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Professors: ROY L. INGRAM, *Chairman,* GERALD R. MACCARTHY, WILLIAM A. WHITE
Associate Professors: JOHN D. EYRE, J. SULLIVAN GIBSON, VIRGIL I. MANN, JOSEPH ST. JEAN, JR., WALTER H. WHEELER
Assistant Professors: DAVID G. BASILE, SHERWIN H. COOPER
Visiting Assistant Professor: J. ROBERT BUTLER
Teaching Fellow: BENJAMIN A. MORGAN III
Graduate Assistants: PAUL K. BIRKHEAD, CHARLES EVERETT BRETT, BARRY A. CENTINI, WILLIAM A. COLLIER, JR., JOHN J. FISHER, JAY P. FLEISHER, OSCAR D. HERMES, JAMES P. MAY, DAVID W. MOORE, MARCUS B. MOREHEAD, ALAN S. OLIVER, CHITTARANJAN PATHAK, THOMAS E. PICKETT, PAUL S. SALTER, DAVID S. SNIPES, JOHN F. SNYDER, EMMETT F. STALLINGS, DAVID C. SWEET, DONALD J. P. SWIFT

GEOLOGY

The course requirements for the A.B. degree with major in geology are as follows: (1) six to eight courses in geology in addition to Geology 11, and Geology 42; (2) five to seven courses in allied sciences, including introductory chemistry and introductory physics (which may be taken in the General College); (3) five to seven courses outside the Division of the Natural Sciences. The A.B. program is not considered sufficient training for professional work in geology.

For B.S. in Geology the following are required:

GENERAL COLLEGE

For freshman and sophomore years, see "General College," Part III.

JUNIOR YEAR

Geology 103, 107, 128-129
Mathematics 31, 32
Physics 24, 25
Three nondivisional electives

SENIOR YEAR

Four of the following: Geology 104, 105, 106, 108, 109
Mathematics 33
English 33
One of the following: Chemistry 43, 51, 61; Zoology 11, 106; Physics 54, 103, 105, 106, 107
Two nondivisional electives

GRADUATE DEGREES IN GEOLOGY

Unless taken as an undergraduate, Geology 104, 105, 106, 108, 109, 128, 129 are required of all candidates for graduate degrees in Geology.

Courses for Undergraduates

11 PHYSICAL GEOLOGY (4). Nature and origin of minerals and rocks, volcanoes, earthquakes, interior of the earth, origin of mountains, soil development, subsurface water, coastal features, evolution of landscape, effects of glaciers, streams, and wind. *Three lecture and two laboratory hours a week, fall and spring.* Staff.

42 HISTORICAL GEOLOGY (4). Prerequisite, Geology 11. The geologic history of the earth as recorded in the rocks and the fossils they contain. The development of life on earth from its ancient beginnings through prehistoric man. *Three lecture and two laboratory hours a week, fall and spring.* Wheeler, St. Jean.

98 HONORS COURSES[1] (3). *Fall and spring.* Staff.
99

Courses for Graduates and Advanced Undergraduates

101 MINERALOGY (4). Prerequisites, Chemistry 11-21 and Geology 11, or permission of the instructor. *Two lecture and four laboratory hours a week, fall.* Butler.

103 GEOLOGIC FIELD METHODS (4). Prerequisite, Mathematics 8. Elementary drafting and surveying for geologists. *Two lecture and four laboratory hours a week, fall.* Ingram, St. Jean.

104 GEOMORPHOLOGY (4). Prerequisites, Geology 11, general physics. *Three lecture and two laboratory hours a week, spring.* White.

105 STRATIGRAPHY (4). Prerequisite, Geology 42. *Three lecture and two laboratory hours a week, spring.* Wheeler.

106 INVERTEBRATE PALEONTOLOGY (4). Prerequisite, Geology 42. *Three lecture and two laboratory hours a week, fall.* St. Jean.

107 STRUCTURAL GEOLOGY (4). Prerequisites, Geology 103, general physics, or permission of the instructor. *Three lecture and two laboratory hours a week, spring.* MacCarthy.

108 ECONOMIC GEOLOGY (3). Prerequisite, Geology 107, 110, 111. A study of mineral deposits. *Two lecture and two laboratory hours a week, spring.* Mann.

1. See requirements in College of Arts and Sciences.

109 ELEMENTS OF GEOPHYSICS (4). Prerequisites, Geology 107, general physics. *Three lecture and two laboratory hours a week, fall.* MacCarthy.

110 IGNEOUS AND METAMORPHIC ROCKS (3). Prerequisites, Geology 42 and 101. The megascopic description and the origin of the igneous and metamorphic rocks. *Two lecture and three laboratory hours a week, spring.* Butler.

111 SEDIMENTARY ROCKS (2). Prerequisites, Geology 42 and 101. The megascopic description and the origin of the sedimentary rocks. *One lecture and two laboratory hours a week, spring.* Ingram, Wheeler.

115 GEOLOGIC HISTORY OF THE VERTEBRATES (3). Prerequisites, Geology 42 or Zoology 41. (1961-1962 and alternate years.) *Fall.* Wheeler.

117 CLAY MINERALOGY (4). Prerequisites, Geology 110 and 111. Includes x-ray diffraction studies of clay minerals. (1962-1963 and alternate years.) *Two lecture and four laboratory hours a week, fall.* Ingram.

122 PHYSIOGRAPHY OF THE EASTERN UNITED STATES (3). Prerequisites, Geology 11 and 104, or permission of the instructor. (1961-1962 and alternate years.) *Fall.* White.

123 PHYSIOGRAPHY OF THE WESTERN UNITED STATES (3). Prerequisites, Geology 11 and 104, or permission of the instructor. (1961-1962 and alternate years.) *Spring.* White.

127 PETROLEUM GEOLOGY (3). Prerequisites, Geology 105, 107, and 111. (1962-1963 and alternate years.) *Two lecture and two laboratory hours a week, spring.* Ingram.

128 SUMMER FIELD COURSES IN GEOLOGY (8). Prerequisites, Geology 101,
129 103, 110, 111. *Equivalent to eight hours a week for one semester.* Staff.

144 OPTICAL MINERALOGY (5). Prerequisites, Geology 101, Physics 25. *Two lecture and six laboratory hours a week, fall.* Mann.

145 ELEMENTARY PETROGRAPHY AND PETROLOGY (5). Prerequisites, Geology 110, 144. *Two lecture and six laboratory hours a week, spring.* Butler.

166 VULCANOLOGY (3). Prerequisite, Geology 11. This course serves as an introduction to vulcanism and related phenomena. (1961-1962 and alternate years.) *Fall.* MacCarthy.

167 EARTHQUAKES AND RELATED PHENOMENA (3). Prerequisite, Geology 11. Earthquakes: their causes and effects; methods of investigation; the theory and operation of seismic recording devices. (1961-1962 and alternate years.) *Fall.* MacCarthy.

Courses for Graduates

221 ADVANCED STRUCTURAL GEOLOGY (4). Prerequisites, Geology 104, 105, 107. (1962-1963 and alternate years.) *Three lecture and two laboratory hours a week, fall.* MacCarthy.

224 ADVANCED ECONOMIC GEOLOGY (Non-metals) (5). Prerequisites, Geology 105, 108, 110, 111. (1962-1963 and alternate years.) *Three lecture and four laboratory hours a week, spring.* Mann.

225 ADVANCED ECONOMIC GEOLOGY (Metals) (5). Prerequisites, 108, 110, 111. (1961-1962 and alternate years.) *Three lecture and four laboratory hours a week, spring.* Mann.

244 ADVANCED PETROLOGY (5 each). Prerequisites, Geology 144, 145. (1961-
245 1962 and alternate years.) Butler.

247 SEDIMENTATION (5 each). Prerequisites, Geology 105, 106, 111. (1961-
248 1962 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring.* Ingram.

261 APPLIED GEOPHYSICS (4). Prerequisites, Geology 109, Mathematics through calculus. (1962-1963 and alternate years.) *Two lecture and six laboratory hours a week, spring.* MacCarthy.

265 THE PHYSICS OF THE EARTH: GEODYNAMICS (3 or 4). Prerequisite, Geology 107, or permission of the instructor. (1961-1962 and alternate years.) *Spring.* MacCarthy.

271 ADVANCED GEOMORPHOLOGY (5 each). Prerequisites, Geology 104, 107,
272 or permission of the instructor. (1962-1963 and alternate years.) *Fall and spring.* White.

281 ADVANCED STRATIGRAPHY (5 each). Prerequisites, Geology 105, 106.
282 (1962-1963 and alternate years.) *Fall and spring.* Wheeler.

285 ADVANCED INVERTEBRATE PALEONTOLOGY (5 each). Prerequisite,
286 Geology 106. (1961-1962 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring.* St. Jean.

288 MICROPALEONTOLOGY (5 each). Prerequisite, Geology 106. (1962-1963
289 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring.* St. Jean.

301 SEMINAR (1 or more).

Research Courses

These courses are intended for applicants for advanced degrees. Laboratory work and conferences with the professor in charge of the work. Work in each of these courses may be continued under the same number with sub-letter designations.

321 RESEARCH IN STRUCTURAL GEOLOGY (2 or more). MacCarthy.

329 RESEARCH IN ECONOMIC GEOLOGY (2 or more). Mann.

341 RESEARCH IN MINERALOGY (2 or more). Mann, Butler.

348 RESEARCH IN SEDIMENTATION (2 or more). Ingram.

349 RESEARCH IN PETROLOGY (2 or more). Mann, Butler.

361 RESEARCH IN GEOPHYSICS (2 or more). MacCarthy.

371 RESEARCH IN GEOMORPHOLOGY (2 or more). White.

381 RESEARCH IN STRATIGRAPHY (2 or more). Wheeler.

389 RESEARCH IN PALEONTOLOGY (2 or more). St. Jean, Wheeler.

GEOGRAPHY

Men and women entering the profession of geography find employment in several fields. Teaching attracts the largest number; government agencies, both federal and state, offer a variety of opportunities in such fields as map making and interpretation, geographical analysis, soils, conservation, etc. Federal, state, and municipal planning agencies use geographers as field investigators, analysts, consultants, and planners. Railroads, airlines, and other private companies employ an increasing number of geographers as trade and transportation analysts, and as consultants.

For an A.B. degree with major in geography there are required, in addition to Geography 38 and 48 and Geology 11, six courses in geography (including 152, 157, and 171), six or seven courses in allied studies selected with the approval of the undergraduate adviser. Six or seven courses must be taken outside the Division of Natural Sciences.

Geography 38 is recommended as preparation for all advanced geography courses.

Courses for Undergraduates

38 INTRODUCTION TO PHYSICAL GEOGRAPHY (4). Natural science credit. A study of the physical basis of geography. Emphasis centers on the climatic environment as fundamental to an understanding of the distribution and activities of man. *Three lecture and two laboratory hours a week, fall and spring.* Staff.

48 INTRODUCTION TO HUMAN GEOGRAPHY (3). Geographical arrangement of population, settlements, agricultural and industrial land use and transportation in the world's major countries and regions. *Spring.* Staff.

Courses for Graduates and Advanced Undergraduates

117 SOILS (3). Prerequisites, Geology 11, Chemistry 11-12 or permission of the instructor. Natural science credit. A study of the nature and geographic distribution of the soils of the world, with special emphasis on southeastern United States. (1962-1963 and alternate years.) *Three hours of lecture a week, in addition to field work, fall.* Gibson.

131 REGIONAL GEOGRAPHY OF THE SOUTH (3). *Spring.* Gibson.

132 LAND UTILIZATION AND SOIL CONSERVATION (3). Prerequisites, Geography 38 and Geology 11, or permission of the instructor. (1961-1962 and alternate years.) *Spring.* Gibson.

151 URBAN GEOGRAPHY (3). Prerequisites, two courses in Geography or permission of the instructor. The location, form, function, and world distribution of the various types of urban settlements. *Spring.* Cooper.

152 ECONOMIC GEOGRAPHY (3). A study of the distribution, production, and utilization of the world's basic commodities. *Fall.* Basile.

153 POLITICAL GEOGRAPHY (3). Physical and human geographic elements in contemporary national and international affairs. *Fall.* Eyre.

154 HISTORICAL GEOGRAPHY OF THE UNITED STATES (3). Evolution of the geographical patterns of population and human activities in major American regions. *Spring.* Eyre.

155 CLIMATES (3). Natural science credit. Prerequisite, Geography 38 or permission of the instructor. A descriptive and generic study of the climates of the earth. Study emphasizes the surface complex rather than meteorological processes. (1961-1962 and alternate years.) *Fall.* Cooper.

156 CONSERVATION OF NATURAL RESOURCES (3). A study of American natural resources, particularly those of North Carolina and the South, with emphasis on their use, their abuse, and their conservation. (1962-1963 and alternate years.) *Three hours of lecture and field work a week.* Gibson.

157 REGIONAL GEOGRAPHY OF NORTH AMERICA (3). *Fall.* Gibson.

158 REGIONAL GEOGRAPHY OF EUROPE (3). The distribution of landforms, climates, people, and cultural features in Europe west of the Soviet Union. *Spring.* Cooper.

159 REGIONAL GEOGRAPHY OF SOUTH AMERICA (3). A study of the environment, resources and activities of continental South America. *Fall.* Basile.

160 REGIONAL GEOGRAPHY OF MIDDLE AMERICA (3). A correlation of the environment, resources and activities of the mainland countries from Mexico to Panama as well as of the Caribbean islands. *Spring.* Basile.

171 CARTOGRAPHY (3). Introduction to maps and map-making, stressing elementary drafting techniques and map design. (1961-1962 and alternate years.) *One lecture and four laboratory hours a week, spring.* Eyre.

175 REGIONAL GEOGRAPHY OF THE USSR (3). The distribution of landforms, climates, people, and cultural features in the USSR. *Fall.* Cooper.

178 FIELD COURSES IN GEOGRAPHY (4 each). Prerequisites, Geography 38,
179 Geology 11. Staff.

181 REGIONAL GEOGRAPHY OF EASTERN ASIA (3). Geographical arrangement of population and human activities in their physical setting in China, Japan, Korea, and the Russian Far East. *Fall.* Eyre.

182 REGIONAL GEOGRAPHY OF SOUTHERN ASIA (3). Geographical arrangement of population and human activities in their physical setting in India, Pakistan, Ceylon, and the countries of southeastern Asia. *Spring.* Eyre.

Courses for Graduates

211 SPECIAL WORK IN GEOGRAPHY (3 or more). Prerequisites, Geography 38 and two courses in the one hundred bracket. Staff.

301 SEMINAR (3 or more). *Time to be arranged.* Staff.

311 RESEARCH IN GEOGRAPHY (3 or more). Staff.

315 THESIS (5 or more).

DEPARTMENT OF GERMANIC LANGUAGES

Professors: JOHN G. KUNSTMANN, *Chairman*, G. S. LANE,[1] W. P. FRIEDERICH,[1] F. E. COENEN, H. W. REICHERT
Associate Professor: RANSOM T. TAYLOR
Assistant Professor: WALTER W. ARNDT[2] (Russian)
Instructors: ERICH P. HOFACKER, JR., VASA MIHAILOVICH (Russian), RIA STAMBAUGH
Part-time Instructors: ANN R. ARTHUR, ALLEN H. CHAPPEL, WILLARD T. DAETSCH, JAMES K. DAY, RUFUS S. DUNHAM, JR., HANSFORD M. EPES, JR., VALLIN D. ESTES, JR., JAMES N. HARDISON, JR., SIDNEY R. SMITH, JR., JAMES C. THOMAS
Teaching Fellow: WALTER GEORGE

Students interested in having their undergraduate major in German should consult the departmental chairman in the second semester of their sophomore year, if possible. For the fulfillment of the departmental requirements for the undergraduate major six to eight courses, in addition to German 21, must be taken from the following: German 22, 31 or 32 or both, 90, 145, plus a minimum of three literature courses from the 100 bracket. The Department offers to qualified undergraduate majors an opportunity to work for honors. Prospective candidates for honors should see the departmental adviser at the beginning of their junior year.

Courses for Undergraduates

1-2 ELEMENTARY GERMAN[3] (6). *Both semesters.* Taylor, Coenen; instructors.

3-4 INTERMEDIATE GERMAN[4] (6). *Both semesters.* Reichert, Taylor; instructors.

21 ADVANCED GERMAN (3 each). Prerequisite, German 4 or equivalent.
22 21: Reading of selected prose writers of the nineteenth and twentieth centuries. 22: Reading of selections from Lessing, Schiller, and Goethe. *Both semesters.* Friederich, Taylor.

31 CONVERSATIONAL GERMAN (3 each). Prerequisite, German 4 or equiva-
32 lent. *31, fall; 32, spring.* Taylor, Reichert, Coenen.

90 ADVANCED GERMAN GRAMMAR (3). Prerequisite, German 22 or equivalent. Review, expansion, and drill. Required of undergraduate majors and candidates for advanced degrees in German. The course yields no credit for the latter. *Fall.* Taylor.

98 HONORS COURSE (3 each). Reading and special studies under the direc-
99 tion of departmental advisers. *Fall and spring.*

Courses Without Credit for Graduate Students

101x ELEMENTARY GERMAN FOR GRADUATE STUDENTS (no credit).
102x These courses are designed for preparation for reading knowledge examinations for higher degrees. Passing of the examination at the end of 102x will certify that this requirement has been satisfied. *Three hours a week, both semesters. Fee, $30.00.* Kunstmann; instructors.

1. Kenan Professor.
2. Absent on leave, 1961-1962.
3. Upper college students who have completed the language requirements are allowed credit for a single elementary language course, i.e., 1 or 2 in the 1-2 series.
4. German 3 and 4 may be taken separately for credit by properly qualified students who have fulfilled their language requirements.

Courses for Graduates and Advanced Undergraduates

103 EXERCISES IN STYLISTICS (3). Prerequisite, German 32 and 90 or equivalent. A *rigorosum* in advanced oral and written composition. Open to undergraduate majors in German on permission of the departmental adviser. Required of candidates for advanced degrees in German. *Spring.* Taylor.

109 GERMAN PROSE IN THE NINETEENTH CENTURY (3). Prerequisite, German 22 or equivalent. Study of the major prose writers of the nineteenth century. Readings, lectures, and reports. *Fall.* Coenen.

111 GERMAN DRAMA IN THE NINETEENTH CENTURY (3). Prerequisite, German 22 or equivalent. Kleist, Grabbe, Büchner, Grillparzer, Hebbel, Ludwig. Readings, lectures, and reports. *Fall.* Coenen.

115 THE GERMAN LYRIC FROM HÖLDERLIN TO THE PRESENT (3). Prerequisite, German 22 or equivalent. An analysis of the chief lyric poets, movements, and types of the past one hundred and fifty years. *Fall.* Reichert.

121 GOETHE'S EARLY WORKS (TO THE ITALIAN JOURNEY) (3). Prerequisite, German 22 or equivalent. Study of his early life. Reading and interpretation of representative works. Lectures and reports. *Spring.* Coenen.

122 GOETHE'S LATER WORKS (3). Prerequisite, German 22 or equivalent. Goethe's life and works from 1788 to 1832, with special emphasis on *Wilhelm Meister* and *Faust* and on Goethe's attitude towards the Napoleonic Wars and Romanticism. *Spring.* Friederich.

131 GERMAN LITERATURE OF THE EIGHTEENTH CENTURY (3). Prerequisite, German 22 or equivalent. The various literary trends of the eighteenth century (exclusive of Goethe and Schiller), with special emphasis on Lessing, Wieland, Klopstock, and Herder. *Spring.* Friederich.

137 SURVEY OF GERMAN LITERATURE IN ENGLISH TRANSLATION (Comparative Literature 137) (3). *Fall.* Reichert.

141 SCHILLER (3). Prerequisite, German 22 or equivalent. (1) Life and time; (2) dramatic works; (3) philosophic and aesthetic theory. *Spring.* Reichert.

145 GERMAN PHONETICS (3). Prerequisite, German 31. A course in German pronunciation and phonetics for prospective teachers of German. Required of undergraduate majors and candidates for advanced degrees in German. *Fall.* Coenen.

152 THE GERMAN NOVEL SINCE 1890 (3). Prerequisite, German 22 or equivalent. A study of the outstanding German novelists since Fontane, with particular emphasis on Mann, Hesse, and Kafka. *Spring.* Reichert.

153 THE GERMAN DRAMA SINCE 1890 (3). Prerequisite, German 22 or equivalent. A study of the modern German dramatists beginning with Hauptmann, with especial emphasis on the drama of naturalism and expressionism. *Fall.* Reichert.

155 GOETHE IN ENGLISH TRANSLATION (Comparative Literature 155) (3). *Fall.* Friederich.

161 HISTORY OF THE GERMAN LANGUAGE (3). Prerequisite, a good reading knowledge of German. *Spring.* Lane.

171 GERMAN CIVILIZATION (3). Lectures given in German. Germany's cultural achievements in broad outline. *Spring.* Friederich.

181 ELEMENTARY NORWEGIAN (6). Prerequisites, satisfactory knowledge
182 of German (represented by German 21 or equivalent) and permission of the instructor. Rapid introduction to modern Norwegian (bokmaal) with particular emphasis on reading. In the second semester, outline of differences between Danish-Swedish and Norwegian; readings in these languages. *181, fall; 182, spring.* Lane.

Courses for Graduates

201 MATERIALS AND METHODS OF RESEARCH (3). *Fall.* Kunstmann.

210 OLDER GERMAN LITERATURE TO 1050 (3). Continental Germanic and German literature from its beginning to the end of the Old High German period. *Fall.* Kunstmann.

221 GOTHIC (3). Grammar and analysis of selections from the Gothic Bible. Comparison with other Germanic Languages, particularly Old English and Old High German. *Fall.* Lane.

222 OLD HIGH GERMAN (3). Grammar and reading of selected texts from Braune's *Althochdeutsches Lesebuch.* Lectures on historical phonology and morphology. *Spring.* Lane.

223 COMPARATIVE GERMANIC GRAMMAR (3). Prerequisite, previous study of at least two older Germanic languages. *Spring, on demand.* Lane.

232 OLD SAXON (3). Grammar and readings from the *Heliand.* Especial attention paid to the relationship with Old English on the one hand and Old High German on the other. *One semester, on demand.* Lane.

233 OLD NORSE (ICELANDIC) (3 each). Grammar and readings from the
234 prose *Edda,* the Icelandic sagas and (second semester) the poetic *Edda. Two semesters, on demand.* Lane.

235 MIDDLE HIGH GERMAN (3 each). Grammar and reading of selections
236 from some of the masterpieces of medieval German literature 1100-1300. *Fall and spring, on demand.* 235 (grammar), Lane; 236 (masterpieces), Kunstmann.

240 READING COURSE (3 each). A course designed to fill certain lacunae in a
241 candidate's training. Reading, reports, brief discussions. *Fall and spring.* Kunstmann.

252 LATE MEDIEVAL AND REFORMATION LITERATURE (3). German literature from ca. 1300 to 1575, with special emphasis on Humanism and Reformation. *Spring.* Kunstmann.

253 GERMAN LITERATURE FROM 1575 to 1730 (3). German literature, its problems and its spiritual and historical background from Fischart through the Baroque Century to Gottsched. *On demand.* Friederich.

270 GENERAL INTRODUCTION TO GERMAN VOLKSKUNDE (3). A reading knowledge of French is desirable but not necessary. A survey of the fields of German literary and non-literary *Volkskunde* with special attention to *Märchen* and *Sprichwort. Fall.* Kunstmann.

272 THE GERMAN VOLKSLIED (3). Survey of German *Volkslied* studies from the eighteenth century to the present; theories concerning the provenance of the *Volkslied;* special attention to the inter-relation of *Volkslied* and *Kunstlied. Spring.* Kunstmann.

340 SEMINAR IN OLDER GERMAN LITERATURE (3 each). *On demand.*
341 Kunstmann.

342 SEMINAR IN GERMAN VOLKSKUNDE (3 each). *On demand.* Kunst-
343 mann.

345 SEMINAR IN GERMAN LITERATURE (3 each). Problems in versification,
346 translation, genres. Foreign contacts of German literature. *On demand.* Friederich.

350 SEMINAR IN GERMAN LITERATURE (3 each). Problems of Romantic
351 literature. Drama and dramatists. *On demand.* Coenen.

355 SEMINAR IN GERMAN LITERATURE (3 each). Philosophical influ-
356 ences on German Classicism and Romanticism. Literary problems since 1850. *On demand.* Reichert.

361 SEMINAR IN LINGUISTICS (3 each). *On demand.* Lane.
362

395 RESEARCH (3). Staff.

RUSSIAN

An expanding range of courses in Russian language and literature will be offered to undergraduate and graduate students desiring to enhance their understanding of a historically influential and increasingly vital component of European and world civilization.

The following courses are offered at present, to be supplemented in time by others in the areas of linguistics, literature, and a second Slavic language:

1-2 ELEMENTARY RUSSIAN[5] (6). Introductory course designed to lay foundation of grammar and to convey basic reading and pronunciation skills. *Three hours a week, through two semesters, 1 fall; 2, spring.* Mihailovich.

3-4 INTERMEDIATE RUSSIAN (6). Grammar-translation work with increasing proportions of free reading and oral work. *Three hours a week, through two semesters, 3, fall; 4, spring.* Mihailovich.

21 ADVANCED RUSSIAN (3 each). Prerequisite, Russian 4 or equivalent.
22 21: Selected readings of nineteenth- and twentieth-century prose, including expository and technical writings. 22: Rapid reading in nineteenth- and twentieth-century literature, including expository and technical writings, exercises in Russian syntax and its application to elementary composition and conversation. Conducted largely in Russian. *21, fall; 22, spring.* Mihailovich.

160 RUSSIAN PROSE LITERATURE OF THE NINETEENTH CENTURY (Comparative Literature 160) (3). *Spring.* Mihailovich.

5. Upper-college students who have completed the language requirement are allowed credit for a single elementary language course, i.e., 1 or 2 in the 1-2 series.

GREEK
(See Classics)

HEBREW
(See Romance Languages)

DEPARTMENT OF HISTORY

Professors: C. H. PEGG,[1] *Chairman,* J. G. deR. HAMILTON,[2] W. W. PIERSON,[3] W. E. CALDWELL,[4] F. M. GREEN,[3] L. C. MACKINNEY,[3] H. T. LEFLER,[3] CECIL JOHNSON, J. C. SITTERSON,[3] J. L. GODFREY, J. W. PATTON,[5] H. A. BIERCK,[6] C. O. CATHEY, F. W. KLINGBERG, J. E. KING

Associate Professors: E. P. DOUGLASS, G. V. TAYLOR, G. B. TINDALL, R. M. MILLER, H. C. BOREN, F. W. RYAN, JR. (and Modern Civilization)

Assistant Professors: C. M. FOUST, JR., S. B. BAXTER, R. D. S. HIGHAM, H. L. BODMAN, JR., P. F. WALKER (and Modern Civilization)

Lecturer: L. B. KOZIEBRODZKI

Instructors: J. K. NELSON, D. D. HALE (and Modern Civilization)

Teaching Assistant: P. C. SMITH

Teaching Fellows: N. D. BROWN, C. W. MORRISON, GORDON ROBERTSON, JR.

Graduate Assistants: J. G. COLLIER, R. A. DAVIS, JUSTIN FULLER, JR., VIRGINIA GLENN, J. W. KNOX, C. R. LOVIN, F. M. NICHOLS, W. J. SCHMIDT, A. R. STOESEN, S. C. TUCKER

Modern Civilization Staff

Associate Professors: J. R. CALDWELL, F. W. RYAN, JR. (and History)

Assistant Professors: P. F. WALKER (and History)

Instructors in Modern Civilization Affiliated with the Department of History: J. B. MACLEOD, W. M. GEER, W. R. FALLAW, D. D. HALE, P. J. PINCKNEY, J. E. SEMONCHE

Instructor in Modern Civilization Affiliated with the Department of Political Science: J. W. DIMMICK

Part-time Instructors: R. E. BEITZELL, A. E. CORNEBISE, R. H. DILLARD, N. M. JOHNSON, W. B. KENNEDY, N. F. MAGRUDER, R. T. MATTHEWS, G. E. MELTON, A. T. MOORE, J. R. MORRILL, T. C. PARRAMORE, G. F. RUTAN, M. R. WILLIAMS

The undergraduate major program in history is designed to train the mind in the study of human affairs, to prepare candidates for graduate training in history, and to provide a general foundation suitable for a variety of occupations. It will consist of eight to ten courses, six of which must be chosen from those numbered from 50 to 199, and the student must elect a concentration of at least five courses in either (1) American-Latin American History or (2) Euro-

1. Alumni Distinguished Professor of History.
2. Kenan Professor and Director of the Southern Historical Collection, Emeritus; died November 10, 1961.
3. Kenan Professor.
4. Died October 6, 1961.
5. Director of the Southern Historical Collection.
6. Absent on leave, fall semester, 1961-1962.

pean-English-Asian History. At least six of the major courses taken while the student is enrolled in the College of Arts and Sciences must be completed with grades of *C* or better.

Honors courses in history (97, 98, and 99) carry full credit toward the major and are open only to students who have previously distinguished themselves. Admission to the honors courses is premised upon an overall average of *B* or better, recommendation from a member of the Department, and approval by the Chairman of the Departmental Honors Committee. Students successfully completing the honors program are entitled to graduate "with honors" or "with highest honors," as recommended by the Department.

Note: History 21 and 22 are open to General College students only; History 71 and 72 are restricted to juniors and seniors and cannot be taken by those having previously completed History 21 and 22.

Courses for Undergraduates

1-2 MODERN CIVILIZATION (6). Freshman requirement. Prerequisite to all other courses in history. *Three hours a week, fall and spring.* Members of staff.

21 22 AMERICAN HISTORY: GENERAL COURSE (6). Sophomore elective. *Three hours a week, fall and spring.* Cathey, Douglass, Johnson, Klingberg, Miller, Nelson, Ryan, Tindall, Walker.

41 42 ANCIENT AND MEDIEVAL HISTORY: GENERAL COURSE (6). Sophomore elective, open to juniors and seniors. *Three hours a week, fall and spring.* Boren, MacKinney.

44 45 ENGLISH HISTORY: GENERAL COURSE (6). Sophomore elective, open to juniors and seniors. *Three hours a week, fall and spring.* Baxter, Higham.

46 LATIN AMERICAN HISTORY: COLONIAL AND REVOLUTIONARY PERIODS (3). Sophomore elective, open to junior and seniors. *Fall.* Bierck.

47 LATIN AMERICAN COUNTRIES DURING THE NATIONAL PERIOD (3). Sophomore elective, open to juniors and seniors. *Spring.* Bierck.

48 MODERN EUROPEAN HISTORY, 1500-1815 (3). Sophomore elective, open to juniors and seniors. *Fall.* Bodman, Boren, Hale, Higham.

49 MODERN EUROPEAN HISTORY SINCE 1815 (3). Sophomore elective, open to juniors and seniors. *Spring.* Hale, Higham, Taylor.

51 HISTORY OF THE ANCIENT NEAR EAST (3). *Spring.* Boren.

52 HISTORY OF GREECE (3). *Fall.* Boren.

53 HISTORY OF ROME (3). *Spring.* Boren.

65 EUROPE AND THE NEAR EAST IN THE CRUSADING AGE, 1000-1300 (3). (1962-1963 and alternate years.) *Fall.* MacKinney.

66 THE AGE OF THE RENAISSANCE, 1250-1550 (3). (1961-1962 and alternate years.) *Fall.* MacKinney.

67 MIDDLE EAST—ARAB PERIOD (3). *Fall.* Bodman.

68 MIDDLE EAST—MODERN PERIOD (3). *Spring.* Bodman.

71 AMERICAN HISTORY TO 1865: GENERAL COURSE (3). Junior-senior elective. Both 21 and 71 may not be taken for credit. *Fall and spring.* Cathey, Douglass, Johnson, Klingberg, Miller, Nelson, Ryan, Tindall, Walker.

72 AMERICAN HISTORY SINCE 1865: GENERAL COURSE (3). Junior-senior elective. Both 22 and 72 may not be taken for credit. *Fall and spring.* Cathey, Douglass, Johnson, Klingberg, Miller, Nelson, Ryan, Tindall, Walker.

83 HISTORY OF THE FAR EAST TO 1500, I (3). *Fall.* Foust.

84 HISTORY OF THE FAR EAST SINCE 1500, II (3). *Spring.* Foust.

85 THE UNITED STATES IN THE PACIFIC AREA SINCE 1784 (3). *Fall.* Miller.

96 PROBLEMS IN AMERICAN HISTORY (3). A pro-seminar for history majors. *Spring.* Miller.

97 HONORS COURSE (3). Required of all students reading for honors in history. King.

98 HONORS COURSE (3). Required of all students reading for honors in European history. Members of European history staff.

99 HONORS COURSE (3). Required of all students reading for honors in United States history. Members of American history staff.

NOTE: Courses in Directed Teaching of the Social Sciences and in Materials and Methods of Teaching the Social Sciences will be found under the School of Education.

Courses for Graduates and Advanced Undergraduates

107 ROMAN HISTORY, 131-31 B.C. (3). *Fall.* Boren.

109 GREEK AND ROMAN HISTORICAL LITERATURE (Classics 109) (3). *Spring.* Allen (of the Department of Classics).

110 EUROPEAN COLONIZATION OF THE NEW WORLD (3). Not open to graduate majors in American history. *Fall.* Bierck.

111 EARLY AMERICAN HISTORY, 1689-1789 (3). Not open to graduate majors in American history. *Spring.* Lefler.

112 UNITED STATES HISTORY, 1789-1848 (3). Not open to graduate majors in American history. *Fall.* Cathey.

113 UNITED STATES HISTORY, 1848-1897 (3). Not open to graduate majors in American history. *Fall.* Miller; *spring.* Klingberg.

114 UNITED STATES HISTORY SINCE 1897 (3). Not open to graduate majors in American history. *Fall.* Sitterson.

120 ORIGINS AND DEVELOPMENT OF MODERN SCIENCE (3). *Spring.* MacKinney.

121 MEDIEVAL CULTURAL LIFE (3). (1962-1963 and alternate years.) *Fall.* MacKinney.

122 SOCIAL-ECONOMIC HISTORY OF THE MIDDLE AGES (3). (1961-1962 and alternate years.) *Fall.* MacKinney.

123 HISTORY OF SPAIN (3). (1962-1963 and alternate years.) *Spring.* MacKinney.

125 THE INTELLECTUAL HISTORY OF EUROPE, SIXTEENTH AND SEVENTEENTH CENTURIES (3). (1961-1962 and alternate years.) *Fall.* King.

126 THE INTELLECTUAL HISTORY OF EUROPE, EIGHTEENTH AND NINETEENTH CENTURIES (3). (1961-1962 and alternate years.) *Spring.* King.

130 EUROPEAN FOUNDATION OF MODERN EDUCATION (Education 142) (3). *Fall.* A. K. King (of the School of Education).

131 THE PROTESTANT REVOLT (3). (1962-1963 and alternate years.) *Fall.* King.

132 THE RISE OF ABSOLUTISM IN EUROPE (3). (1962-1963 and alternate years.) *Spring.* King.

133 EUROPE IN AN AGE OF REVOLUTION, 1789-1815 (3). *Fall.* Taylor.

134 EUROPE, 1815-1870 (3). *Spring.* Taylor.

135 EUROPE, 1870-1918 (3). *Fall.* Pegg.

136 EUROPE SINCE 1918 (3). *Fall.* Pegg.

137 MEDIEVAL ENGLAND (3). (1962-1963 and alternate years.) *Fall.* Baxter.

138 ENGLAND FROM 1485 TO 1702 (3). *Fall.* Baxter.

139 ENGLAND FROM 1702 TO 1815 (3). *Spring.* Baxter.

140 GREAT BRITAIN FROM 1815 TO 1901 (3). *Fall.* Godfrey.

141 GREAT BRITAIN SINCE 1901 (3). *Spring.* Godfrey.

142 DEVELOPMENT OF THE ENGLISH CONSTITUTION (Political Science 154) (3). *Fall.* Godfrey.

143 THE DIPLOMATIC HISTORY OF THE UNITED STATES TO 1898 (3). *Fall.* Johnson.

144 THE DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1898 (3). *Spring.* Johnson.

145 THE HISTORY OF AMERICAN IDEAS, 1607-1860 (3). (1962-1963 and alternate years.) *Fall.* Douglass.

146 THE HISTORY OF AMERICAN IDEAS, 1860 TO PRESENT (3). (1961-1962 and alternate years.) *Spring.* Miller.

159 THE BRITISH COMMONWEALTH OF NATIONS (Political Science 159) (3). *Spring.* Baxter.

161 NORTH CAROLINA I, 1584-1835 (3). *Fall.* Lefler.

162 NORTH CAROLINA II, 1835-1950 (3). *Fall and spring.* Lefler.

163 THE OLD SOUTH (3). *Fall and spring.* Green.

164 THE SOUTH SINCE RECONSTRUCTION (3). *Spring.* Tindall.

167 ECONOMIC HISTORY OF THE UNITED STATES TO 1865 (3). (1961-1962 and alternate years.) *Fall.* Cathey.

168 ECONOMIC HISTORY OF THE UNITED STATES SINCE 1865 (3). *Spring.* Douglass.

170 SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES (Education 143) (3). *Fall.* A. K. King (of the School of Education).

171 ARGENTINA, BRAZIL, AND CHILE (3). (1962-1963 and alternate years.) *Fall.* Bierck.

172 INTER-AMERICAN ECONOMIC AND CULTURAL RELATIONS (3). (1962-1963 and alternate years.) *Spring.* Bierck.

173 THE BOLIVARIAN STATES SINCE INDEPENDENCE (3). (1961-1962 and alternate years.) *Spring.* Bierck.

174 MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN (3). (1961-1962 and alternate years.) *Fall.* Bierck.

175 THE CONSTITUTION OF THE UNITED STATES (Political Science 155) (3). *Fall and spring.* Jenkins (of the Department of Political Science).

180 RUSSIA, 1500-1762 (3). *Fall.* Foust.

181 RUSSIA, 1762-1917 (3). *Spring.* Foust.

182 RUSSIA, 1917 TO PRESENT (3). *Fall.* Koziebrodzki.

183 RUSSIAN FOREIGN RELATIONS IN THE TWENTIETH CENTURY (3). *Spring.* Koziebrodzki.

190 EUROPEAN RELATIONS WITH THE MIDDLE EAST SINCE 1700 (3). *Spring.* Bodman.

Courses for Graduates

201 EUROPEAN HISTORIOGRAPHY[7] (3). *Fall.* King.

202 AMERICAN HISTORIOGRAPHY[7] (3). *Fall.* Klingberg.

203 RESEARCH MATERIALS AND METHODS IN RUSSIAN HISTORY (3). *Fall.* Foust.

206 GREEK HISTORY, 500-146 B.C. (3). (1961-1962 and alternate years.) *Fall.* Boren.

208 ROMAN HISTORY, 31 B.C.-180 A.D. (3). (1962-1963 and alternate years.) *Spring.* Boren.

224 THE AGE OF THE RENAISSANCE, 1250-1550 (3). *Spring.* MacKinney.

233 PROBLEMS IN THE STUDY OF THE FRENCH REVOLUTION, 1789-1815 (3). (1962-1963 and alternate years.) *Fall.* Taylor.

236 EUROPE BETWEEN THE TWO WORLD WARS (3). (1961-1962 and alternate years.) *Spring.* Pegg.

7. Candidates for advanced degrees will take 201 if their major is in European area, 202 if their major is in American area.

237 EUROPE SINCE WORLD WAR II (3). (1962-1963 and alternate years.) *Spring.* Pegg.

238 POLITICAL AND INTELLECTUAL HISTORY OF ENGLAND, 1529-1702 (3). (1961-1962 and alternate years.) *Spring.* Baxter.

249 CIVILIZATION IN THE AMERICAN COLONIES (3). (1962-1963 and alternate years.) *Spring.* Lefler.

250 THE AMERICAN REVOLUTION AND ITS BACKGROUND (3). (1961-1962 and alternate years.) *Fall.* Lefler.

251 THE FEDERAL PERIOD, 1783-1812 (3). (1962-1963 and alternate years.) *Fall.* Douglass.

252 THE MIDDLE PERIOD, 1815-1860 (3). (1961-1962 and alternate years.) *Spring.* Green.

254 CIVIL WAR AND RECONSTRUCTION (3). (1962-1963 and alternate years.) *Spring.* Klingberg.

255 FOUNDATIONS OF MODERN AMERICA (3). (1961-1962 and alternate years.) *Fall.* Tindall.

256 RECENT AND CONTEMPORARY UNITED STATES (3). (1962-1963 and alternate years.) *Fall.* Sitterson.

270 PROBLEMS IN LATIN AMERICAN HISTORY (3). *Spring.* Bierck.

301 ANCIENT HISTORY (3). *Conference and reports, three hours a week, spring.* Boren.

311 MEDIEVAL HISTORY (3). *Conference and reports, three hours a week, fall.* MacKinney.

319 EARLY MODERN EUROPEAN HISTORY (3). *Conference and reports, three hours a week, spring.* King.

320 FRENCH REVOLUTION AND THE NINETEENTH CENTURY (3). *Conference and reports, three hours a week, fall.* Taylor.

321ab RECENT MODERN EUROPEAN HISTORY (3 each). *Conference and reports, three hours a week, fall and spring.* Pegg.

322 TUDOR-STUART ENGLAND (3). *Conference and reports, three hours a week, fall.* Baxter.

323 MODERN ENGLISH HISTORY (3). *Conference and reports, three hours a week, spring.* Godfrey.

325 SEMINAR IN MODERN RUSSIAN HISTORY (3). *Conference and reports, three hours a week, spring.* Foust.

331 AMERICAN COLONIAL HISTORY (3). *Conference and reports, three hours a week, fall.* Lefler.

335ab THE NATION AND THE SECTIONS (3 each). *Conference and reports, three hours a week, fall and spring.* Green.

336 CIVIL WAR AND RECONSTRUCTION (3). (1961-1962 and alternate years.) *Conference and reports, three hours a week, spring.* Klingberg.

337 RECENT HISTORY OF THE UNITED STATES (3). (1962-1963 and alternate years.) *Conference and reports, three hours a week, spring.* Sitterson.

341 READING COURSE (3). *Fall and spring.* Members of the graduate faculty.

370a LATIN AMERICAN HISTORY (3). *Conference and reports, three hours a week, fall.* Bierck.

370b LATIN AMERICAN HISTORY (3). *Conference and reports, three hours a week, spring.* Pierson.

375 THESIS COURSE (3). *Fall and spring.* Members of the graduate faculty.

SCHOOL OF JOURNALISM

Professors: NORVAL NEIL LUXON, *Dean,* C. P. RUSSELL,[1] WALTER SPEARMAN
Associate Professors: JOHN B. ADAMS, KENNETH R. BYERLY, WAYNE A. DANIELSON, JOSEPH L. MORRISON, JAMES J. MULLEN, STUART W. SECHRIEST
Research Assistants: W. GLENN ROBERTSON, LARRY K. SMITH

Courses in the School of Journalism are open to juniors, seniors, and graduate students in the University who meet the prerequisites or obtain permission of the instructor or the Dean.

Journalism courses by arrangement with the College of Arts and Sciences have been grouped into three categories: (1) Courses allied to Humanities; (2) Courses allied to the Social Sciences; and (3) Professional courses. Students enrolled in the College of Arts and Sciences may elect courses in the first two categories, but they may not take courses in the Professional category for credit toward a degree in the College of Arts and Sciences without prior approval by the Administrative Board of the College of Arts and Sciences.

Humanities-allied courses are 53, 56, 58, 60, and 73. Those in the Social Science category are 54, 146, 161, 165, 184, and 191. Professional courses are 55, 57, 59, 74, 80, 99, 170, 171, 172, and 173.

Students in the School of Business Administration and School of Education should consult with journalism staff members and their advisers before scheduling journalism courses.

Journalism students interested in International Studies may take many of the courses in that curriculum, including the "core courses," in meeting journalism requirements in history and political science and as electives. Those interested should consult the Dean of the School of Journalism or the journalism adviser on International Studies.

Curriculum leading to the degree Bachelor of Arts in Journalism: The course of study for the first two years is the same as that required of other candidates for the Bachelor of Arts degree. Students are advised to meet their social science requirement by taking Modern

1. Professor, Emeritus.

Civilization 1 and 2 and Political Science 41. Another recommended course to meet the General College Natural Science requirement is Psychology 26. Suggested sophomore electives are: Economics 31-32, English 23 or 26, Philosophy 21 or 22, Political Science 51, Sociology 51.

The professional program of the School of Journalism consists of eight to ten journalism courses, four of which are specified; two American history or North Carolina history courses, Political Science 41; two advanced courses in any one of four social science departments: economics, political science, psychology, or sociology. Prerequisites for these advanced courses are respectively: Economics 31-32 or 61, Political Science 41, Psychology 26, or Sociology 51. The prerequisite course or courses preferably should be taken in the General College because Economics 61 is the only prerequisite which carries upper-college credit toward a degree.

The four journalism courses required of all candidates for the Bachelor of Arts degree in Journalism are 53, Introduction to News Writing; 57, News Editing; 161, History of Journalism; and 184, The Press, the Constitution, and the Law.

Journalism assignments must be typewritten; therefore it is essential that each student be able to type with reasonable skill and speed.

Students who have an undergraduate major in journalism or the equivalent may earn the Master of Arts degree with a major in journalism through the Graduate School. Areas of interest in the field of communication available to graduate students include advertising, the audiences and effects of the mass media, the communication process, history of journalism, and international communication and comparative (foreign) journalism.

A graduate minor in journalism is available for candidates for the A.M. and Ph.D. degrees in English, history, political science, psychology, and sociology, and the M.A. in Communication.

Students interested at present or in the future in the graduate program may obtain additional information from the School of Journalism Bulletin, the Graduate School Catalogue, or by consultation with the Dean of the School of Journalism.

Courses for Undergraduates

(Description of journalism courses may be found in the special catalogue of the School of Journalism.)

53 INTRODUCTION TO NEWS WRITING (3). Prerequisite, sophomore standing and ability to type. *One lecture and four laboratory hours a week, fall and spring.* Staff.

54 REPORTING OF PUBLIC AFFAIRS (3). Prerequisite, Journalism 53. *Fall and spring.* Morrison.

55 ADVANCED REPORTING (3). Prerequisite, Journalism 53; Journalism 54 recommended. *One conference and eight laboratory hours a week, fall and spring.* Byerly, Spearman.

56 FEATURE WRITING (3). *Fall and spring.* Morrison.

57 NEWS EDITING (3). Prerequisite, Journalism 53. *One lecture and four laboratory hours a week, fall and spring.* Sechriest.

58 EDITORIAL WRITING (3). *Fall and spring.* Spearman.

59 COMMUNITY JOURNALISM (3). *Spring.* Byerly.

60 BOOK REVIEWING AND DRAMATIC CRITICISM FOR NEWSPAPERS (3). *Fall and spring.* Spearman.

73 RADIO AND TELEVISION JOURNALISM (3). *Fall.* Morrison.

74 WRITING FOR BUSINESS AND PROFESSIONAL PUBLICATIONS (3). *Spring.* Morrison.

80 NEWS PHOTOGRAPHY (3). Prerequisite, permission of the instructor. *Two lecture and three laboratory hours a week, fall and spring.* Sechriest.

99 INDIVIDUAL STUDY (3). Prerequisites, senior standing and permission of the instructor. *Fall and spring.* Staff.

Courses for Graduates and Advanced Undergraduates

146 INTERNATIONAL COMMUNICATIONS AND COMPARATIVE JOURNALISM (Political Science 146) (3). Prerequisite, six semester hours of upper-division courses in international relations or recent European history. *Fall.* Adams.

161 HISTORY OF JOURNALISM (3). *Fall.* Luxon.

165 COMMUNICATION AND OPINION (Psychology 165) (Sociology 165) (3). Prerequisites, any two of the following courses: Psychology 26, Political Science 41, Sociology 51. *Fall and spring.* Danielson.

170 PRINCIPLES OF ADVERTISING (3). *Each fall; spring 1961-1962 and alternate years.* Mullen.

171 ADVERTISING COPY AND COMMUNICATIONS (3). Prerequisite, Journalism 170, or Business Administration 161, or equivalent. *One lecture and four laboratory hours a week, fall.* Mullen.

172 ADVERTISING MEDIA (3). Prerequisite, Journalism 170, or Business Administration 161, or equivalent. *Two lecture and two laboratory hours a week, spring.* Mullen.

173 ADVERTISING CAMPAIGNS (3). Prerequisite, Journalism 170 or equivalent; Journalism 171 or 172 or concurrent. (1962-1963 and alternate years.) Mullen.

184 THE PRESS, THE CONSTITUTION, AND THE LAW (3). Prerequisite, senior standing. *Spring.* Adams.

191 FUNCTIONS AND RESPONSIBILITIES OF CONTEMPORARY JOURNALISM (3). Prerequisites, senior standing and permission of the instructor for non-majors. *Spring.* Luxon.

Courses for Graduates

251 MEDIA RESEARCH METHODS (R-TV-MP 251) (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures. *Fall.* Danielson.

301 SEMINAR IN HISTORY OF AMERICAN JOURNALISM (3). *Fall and spring.* Luxon.

318 SEMINAR IN THEORIES OF COMMUNICATION (3). Prerequisites, graduate standing in journalism, sociology, or psychology, Journalism 165, or a course in social psychology, and permission of the instructor. (1961-1962 and alternate years.) *Spring.* Danielson.

340 SEMINAR IN MEDIA ANALYSIS (Psychology 340) (Sociology 340) (3). Prerequisites, graduate standing in journalism, psychology, sociology, or anthropology, and permission of the instructor. Students will participate in the design and execution of a media research project. (1962-1963 and alternate years.) *Spring.* Danielson.

345 READING AND RESEARCH (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures. Advanced reading or research in a selected field. *Fall and spring.* Adams, Danielson, Luxon, Mullen.

346 SEMINAR IN INTERNATIONAL COMMUNICATION (Political Science 346) (3). Prerequisites, Journalism 146, or permission of the instructor. *Spring.* Adams.

350 THESIS (3 or 6). *Fall and spring.* Members of the graduate faculty.

LATIN

(See Classics)

SCHOOL OF LIBRARY SCIENCE

Professors: LUCILE KELLING HENDERSON,[1] SUSAN G. AKERS[1]
Associate Professors: CARLYLE J. FRAREY, *Acting Dean,* MARGARET E. KALP
Assistant Professor: ROBERT A. MILLER
Lecturers: RAY L. CARPENTER, JR., SUSAN CSAKY

Library Science 122, 123, 151, and 152 may be taken by advanced undergraduates in the College of Arts and Sciences with the approval of the Dean of the School of Library Science.

Library Science 93 may be taken by elementary school teachers only.

Library Science 101, 111, 133, and 143 may be taken only by advanced undergraduates in the School of Education. These courses and Library Science 122 and 123 are planned for students who wish to meet the requirements for certification as school librarians in North Carolina. Besides these library science courses, the student will take

1. Dean, Emeritus.

the courses in education required for certification and a major program in English, French, Latin, mathematics, natural science, or social science. These programs are outlined under the "School of Education," in Part III. Library Science is not a major teaching field.

Students who choose library science as a second teaching field and who wish to meet North Carolina school library certification requirements will take Library Science 101, 111, 122, 123, 133, and 143.

The courses Library Science 101, 111, 122, 123, 133, and 143 meet the course requirements in library science for admission to the program leading to the degree of Master of Science in Library Science for school librarians.

Courses for Undergraduates

93 SURVEY AND EVALUATION OF BOOKS AND RELATED MATERIALS FOR CHILDREN[2] (3). *Fall and spring.* Kalp.

101 CATALOGING AND CLASSIFICATION (3). *Fall.* Frarey.

111 SELECTION AND USE OF BOOKS AND RELATED MATERIALS FOR ADULTS (REFERENCE BOOKS AND THEIR USE) (3). *Fall.* Miller.

122 THE SELECTION OF BOOKS AND RELATED MATERIALS FOR YOUNG PEOPLE (3). *Fall.* Kalp.

123 THE SELECTION OF BOOKS AND RELATED MATERIALS FOR CHILDREN (3). *Spring.* Kalp.

133 INTRODUCTION TO LIBRARIANSHIP (3). *Fall.* Carpenter.

143 SCHOOL LIBRARY ORGANIZATION AND ADMINISTRATION (3). *Fall.* Kalp.

151 HISTORY OF BOOKS AND PRINTING (3). *Spring.* Miller.

152 CONTEMPORARY BOOKMAKING, PUBLISHING, AND THE COMMUNICATIONS INDUSTRY (3). *Fall.* Csaky.

2. Not included in the 18 semester hour program for school librarians; a special course for elementary school teachers only.

CURRICULUM IN LINGUISTICS

Administrative Committee: Dean of the Graduate School, *Chairman,* W. W. ARNDT, *Secretary,* V. CANTARINO, N. E. ELIASON, R. GASKIN, R. J. GETTY,[1] U. T. HOLMES,[2] J. E. KELLER, G. S. LANE,[2] L. LEVINE, R. W. LINKER

This curriculum includes linguistic courses offered in various departments of the University and other courses needed by students specializing in linguistic work.

Students desiring to offer linguistics as their major or minor field for the A.M. or Ph.D. degrees must have their proposed program of studies approved by the secretary of this curriculum.

1. Paddison Professor of Classics.
2. Kenan Professor.

General

100 INTRODUCTION TO DESCRIPTIVE LINGUISTICS (Anthropology 113) (3). *Fall.* Levine.

101 INTRODUCTION TO HISTORICAL AND COMPARATIVE LINGUISTICS (Anthropology 114) (3). The course deals with language as a diachronic system and introduces comparative analysis and historical reconstruction, mainly in the context of Indo-European. Among the concepts and phenomena discussed are linguistic change, genetic kinship and classification, dialect geography, and glottochronology. *Spring.* Arndt.

213 PHONETICS AND PHONEMICS (Anthropology 213) (4). *Spring.* Levine.

214 GRAMMATICAL ANALYSIS: MORPHOLOGY (Anthropology 214) (4). (1962-1963 and alternate years.) *Fall.* Levine.

215 GRAMMATICAL ANALYSIS: SYNTAX (Anthropology 215) (4). (1961-1962 and alternate years.) *Fall.* Levine.

293 FIELD METHODS IN PHONOLOGICAL ANALYSIS (Anthropology 293) (3). *Fall.* Levine.

294 FIELD METHODS IN GRAMMATICAL ANALYSIS (Anthropology 294) (3). *Spring.* Levine.

341 THESIS (3). *Both semesters.* Staff.

361 SEMINAR IN LINGUISTICS (3 each). *Both semesters, on demand.* Staff.
362

Celtic

105 CELTIC: OLD IRISH (3). Rapid sketch of morphology and readings in Old and Middle Irish, especially from Strachan, *Selections from the Tain.* Lectures on historical Irish grammar. *On demand.* Holmes.

106 CELTIC: OLD WELSH (3). Introduction to Modern and Middle Welsh. Texts: Evans, *A First Welsh Reader* and Strachan, *Introduction to Early Welsh.* Historical development of the Welsh language. *On demand.* Holmes.

Germanic

161 HISTORY OF THE GERMAN LANGUAGE (3). (1962-1963 and alternate years.) *Spring.* Lane.

221 GOTHIC (3). (1961-1962 and alternate years.) *Fall.* Lane.

222 OLD HIGH GERMAN (3). (1961-1962 and alternate years.) *Spring.* Lane.

223 COMPARATIVE GERMANIC GRAMMAR (3). *Spring, on demand.* Lane.

232 OLD SAXON (3). *Spring, on demand.* Lane.

233 OLD NORSE (3 each). (1961-1962 and alternate years.) *Both semesters.*
234 Lane.

235 MIDDLE HIGH GERMAN (3). (1962-1963 and alternate years.) *Fall.* Lane.

237 OLD ENGLISH GRAMMAR AND READING (3). *Fall.* Eliason.

238 HISTORY OF THE ENGLISH LANGUAGE (3). Prerequisite, English 237 or permission of the instructor. *Spring.* Eliason.

250 OLD ENGLISH: BEOWULF (3). Prerequisite, English 237. *Spring.* Gaskin.

Greek and Latin

202 LATIN EPIGRAPHY (3). *Time to be arranged.* Getty.

203 LATIN PALEOGRAPHY (3). *Time to be arranged.* Getty.

204 COMPARATIVE GRAMMAR OF GREEK AND LATIN (3). Designed not only for the student of Classics but also a basic course for students of comparative Indo-European grammar. (1961-1962 and alternate years.) *Spring.* Lane.

Indic

111 BEGINNING SANSKRIT (3 each). Grammar and readings from the epic
112 and didactic literature. Supplementary lectures intended to serve as a basis for Indo-European comparative grammar. *Both semesters, on demand.* Lane.

201 ADVANCED SANSKRIT (3 each). Extensive reading from the Dharmaçâstra,
202 the Sūtras and Brāhmanas, and the Vedas. *Both semesters, on demand.* Lane.

Romance

126 HISTORY OF THE FRENCH LANGUAGE (3). Prerequisite, French 72. *Spring.* Linker.

220 VULGAR LATIN (3). (1962-1963 and alternate years.) *Fall.* Holmes.

221 OLD FRENCH (3 each). *Fall and spring.* Holmes.
222

225 PROVENÇAL (3). *Spring.* Linker.

221 OLD ITALIAN (3). (1962-1963 and alternate years.) *Fall.* Holmes.

221 OLD SPANISH (3 each). *Fall and spring.* Keller.
222

221 OLD PORTUGUESE (3). (1961-1962 and alternate years.) *Spring.* Holmes.

324 ROMANCE PALEOGRAPHY (3). (1962-1963 and alternate years.) *Fall.* Linker.

370 MINOR ROMANCE TONGUES (3). (1961-1962 and alternate years.) *Spring.* Holmes.

Semitic

101 ARABIC: ELEMENTARY ARABIC (3). *Fall.* Cantarino.

102 ARABIC: READING IN ARABIC (3). *Spring.* Cantarino.

113 ELEMENTARY HEBREW (Religion 113-114) (3). *Fall and spring.* Can-
114 tarino.

Slavic and Baltic

206 LITHUANIAN (3). Introduction to the historical grammar of the Baltic languages. *Fall, on demand.* Lane.

207 CHURCH SLAVIC (3). Introduction to the historical grammar of the Slavic languages. *Spring, on demand.* Lane.

DEPARTMENT OF MATHEMATICS

Professors: W. M. WHYBURN,[1] *Chairman*, ARCHIBALD HENDERSON,[2] T. F. HICKERSON,[2] J. W. LASLEY, JR., E. L. MACKIE, J. B. LINKER, M. A. HILL, JR., A. S. WINSOR,[3] R. M. TRIMBLE, V. A. HOYLE, E. A. CAMERON, ALFRED T. BRAUER,[1] F. BURTON JONES, B. J. PETTIS, W. ROBERT MANN

Associate Professors: L. L. GARNER, J. S. MAC NERNEY, J. W. CARR III, ROBERT L. DAVIS

Visiting Associate Professors: SEMOUR SCHUSTER, RAFAEL ARTZY[4]

Assistant Professors: J. H. WELLS,[5] J. D. BUCKHOLTZ, C. WAYNE PATTY, ANCEL C. MEWBORN

Instructor: GEORGE W. HENDERSON[4]

Part-time Instructors: ROBERT L. BERNHARDT III, WARREN J. BOE, ANIL K. BOSE, JUDITH BUSH, WILLIAM L. BYNUM, RAYMOND H. COX, REBECCA S. COX, PENELOPE C. CROCKETT, SALLY T. DALTON, ALBERT L. DEAL III, JULIA DUNNING, JOHN ALBERT FRIDY, SARAH G. GLOVER, JAMES W. HANSON, JAMES V. HEROD, JAMES L. HUGHES, PETER H. JESSNER, ROBERT S. JOHNSON, PHILLIP M. KANNAN, KWANGIL KOH, ELIZABETH ANN MCLEOD, SANDRA G. NESS, STEWART B. PRIDDY, JAMES ALLEN RENEKE, WILLIAM R. R. TRANSUE, WILFRED TURNER, WILLIAM H. TURNER, EMANUEL VEGH, JAMES R. J. WADKINS, CLIFTON T. WHYBURN, KLAUS GERHARD WITZ

Teaching Fellows: DOUGLAS E. CRABTREE, GARRET JAY ETGEN

For the degree of A.B. with a major in mathematics a student should take the following courses:

I. (a) Mathematics 31, 32, 33.

(b) Four to six additional courses, of which at least four are numbered 100 or above.

II. From five to seven courses in the Division of Natural Sciences but not in mathematics.

III. From five to seven courses not in the Division of Natural Sciences.

The Department has a program for its majors who desire to work for a degree with honors. The program is flexible and designed to give the qualified undergraduate accelerated study and early research experience. Interested students should consult the departmental honors adviser before completing the third semester of calculus and in no case later than the beginning of their senior years.

Students intending to teach mathematics in the public schools and students enrolled in the School of Education who intend to major in mathematics should consult the section of the catalogue on the School of Education.

The following curriculum leading to the Bachelor of Science degree in Mathematics is now available:

For freshman and sophomore years see "General College," Part III.

1. Kenan Professor.
2. Kenan Professor, Emeritus.
3. Professor, Emeritus.
4. Resigned August 31, 1961.
5. Absent on leave, 1961-1962.

JUNIOR AND SENIOR YEARS

Six courses in mathematics, at least five numbered 100 or above, including:
(a) 33 (if not previously taken)
(b) 141 or 171 or 193
(c) 135 or 136 or 147

Six courses in the Division of Natural Sciences, including one in a biological science; and Physics 24, 25 (or 34, 35) if not taken in the first two years. No course in mathematics except Mathematics 41 and 51 may be included.

Four courses outside the Division of Natural Sciences.

Free electives to bring total semester hours credit for the four years to at least 129 (including 6 hours credit in Hygiene and Physical Education) and the total number of full courses to at least 38.

The Department has a committee to advise students interested in preparation for actuarial work.

Before registering for Mathematics 6 or Mathematics 15, each student is required to take a mathematics placement test.

Advanced standing examinations in algebra and trigonometry are available to well-prepared students at the time of first registration in mathematics courses.

Courses for Undergraduates

6
7 INTEGRATED ALGEBRA AND TRIGONOMETRY (3-3). The real numbers, inequalities, exponents, functions, graphs, exponential and logarithmic functions, the trigonometric functions, inverse functions, complex numbers, theory of equations, permutations, combinations, and probability. *Fall and spring.* Staff.

15 INTRODUCTION TO COLLEGE MATHEMATICS (3). Number systems, inequalities, equations and graphs, trigonometric functions, mathematical induction, theory of equations, introduction to analytic geometry. *Fall.* Staff.

21 INTRODUCTION TO DIGITAL COMPUTER USAGE (0). Open to sophomores and above. Preparation for junior and senior year use of digital computers in the social and natural sciences. *Fall and spring.* Carr, Hanson; staff.

31
32 CALCULUS WITH ANALYTIC GEOMETRY (3-3-3). Prerequisite, Mathematics 15 or 6 and 7. *Fall and spring.* Staff.
33

31*
32* CALCULUS WITH ANALYTIC GEOMETRY (3-4-4). Prerequisite, Mathematics 15 or 6 and 7. (Not given after 1961-1962.) Staff.
33*

41 MECHANICAL DRAWING (4). *Five hours a week, fall.* Trimble.

98 UNDERGRADUATE SEMINAR IN MATHEMATICS (2). Prerequisite, permission of the instructor. A seminar on a chosen topic in mathematics in which the students participate more actively than in usual courses. *Spring.* Staff.

99 UNDERGRADUATE SEMINAR IN MATHEMATICS (2). Prerequisite, permission of the instructor or the honors adviser. A seminar on a chosen topic in mathematics in which the students do most of the work and report to their fellow students. *Fall and spring.* Pettis; others.

Courses for Graduates and Advanced Undergraduates

102 ELEMENTARY ALGEBRA FROM AN ADVANCED VIEWPOINT (3). Prerequisite, Mathematics 32 or equivalent. Designed especially for teachers. *Spring.* Mackie.

103 INTRODUCTION TO HIGHER GEOMETRY (3). Prerequisite, Mathematics 31 or equivalent. Designed for teachers. *Summer session.* Staff.

105 HISTORY OF MATHEMATICS (3). *Summer session.* Garner.

108 MATHEMATICS FOR SOCIAL SCIENTISTS (3 each). Prerequisite,
109 Mathematics 31 or permission of the instructor. The subject matter is pure mathematics, chosen for its applicability in behavioral models. Topics selected from sets, relations and graphs; probability theory for discrete and continuous random variables; difference and differential equations; vectors and matrices; Markov chains; functions of several variables; optimization problems and game theory. *Fall and spring.* Davis.

110 CALCULUS OF FINITE DIFFERENCES (3). Prerequisite, Mathematics 32 or equivalent. Finite differentiation, summation of series, relations among operators, interpolation formulas, Bernoulli's and Euler's polynominals, solution of difference equations. *Fall.* Garner.

111 ELEMENTARY MATHEMATICAL STATISTICS (3). Prerequisite, Mathematics 33 or equivalent. A course dealing with elementary theory and applications, with special emphasis on the mathematical development of frequency curves, correlation, sampling, etc. *Spring.* Hill.

112 MATHEMATICAL ANALYSIS OF LIFE CONTINGENCIES (3). Prerequisite, Mathematics 33. A study of survival functions, mortality measurements, annuity and insurance benefits, net premiums, premium reserves, expense factors, premiums for combined benefits, multiple-life functions, joint-life status, last survivor status, generalized multiple-life status, contingent functions, and reversionary annuities. *Spring.* Garner.

116 FUNDAMENTAL CONCEPTS OF ALGEBRA (3). Prerequisite, Mathematics 32 or permission of the instructor. Such basic concepts as sets, number systems, and algebraic systems will be treated. Topics in groups, rings, and fields will be selected from modern algebra as they have particular relevance to high school algebra. *Fall.* Cameron.

117 ANALYTIC GEOMETRY FROM A HIGHER STANDPOINT (3). Prerequisite, Mathematics 32 or permission of the instructor. *Spring and summer session.* Lasley.

118 SOME CONCEPTS OF ANALYSIS (3). Prerequisite, Mathematics 33. A study of sequences, limits, functions, continuity, differentiability, infinite series, computation of tables, integrability, real numbers, complex numbers, algebraic and transcendental numbers. *Spring.* Hoyle.

119 TOPICS FROM GEOMETRY AND ELEMENTARY TOPOLOGY (3). Prerequisite, Mathematics 32 or permission of the instructor. Deductive reasoning in Euclidean geometry; non-Euclidean geometry; affine geometry; order in geometry, especially the theory of betweenness on a line; congruence; introduction to some ideas in elementary topology. *Spring.* Jones.

120 PROBABILITY (3). Prerequisite, Mathematics 33 or equivalent. The concept and foundations of probability; random variables and distribution functions; expected values and moments; the binomial, Poisson, and hypergeometric distributions; normal distributions; compound events and joint distributions; limit theorems, law of large numbers, central limit theorem; applications to games of chance, statistics, theory of errors and adjustment. *Spring.* Davis.

121 THEORETICAL AND APPLIED MECHANICS (3). Prerequisite, Mathematics 33 or equivalent. *Spring.* Trimble.

131 THEORY OF EQUATIONS (3). Prerequisite, Mathematics 32 or equivalent. *Fall.* Mackie.

135 LINEAR ALGEBRA (3). Prerequisite, Mathematics 32 or equivalent. Introduction to the theory of finite dimensional vector spaces, matrices treated from the standpoint of linear transformations. *Spring.* Cameron.

136 INTRODUCTION TO MODERN ALGEBRA I (3). Prerequisite, Mathematics 33. Introduction to the theory of groups, rings, integral domains, and fields. *Fall.* Cameron.

137 INTRODUCTION TO MODERN ALGEBRA II (3). Prerequisite, Mathematics 136. Elementary theory of vector spaces and matrices. *Spring.* Cameron.

141 DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 33. This course is designed for students specializing in mathematics and the sciences. It treats ordinary differential equations with applications to mechanics, geometry, and physics. *Fall and spring.* Linker, Hill.

142 DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 141. Properties of solutions of ordinary equations, the method of successive approximations, Sturm-Liouville systems, Wronskians, oscillations theorems, Greens functions and associated expansion theorems with emphasis on second order methods. *Spring.* Whyburn.

147 INTRODUCTION TO THE THEORY OF DETERMINANTS AND MATRICES (3). Prerequisite, Mathematics 32 or equivalent. A study of the basic concepts and theorems concerning determinants and matrices. *Fall.* Brauer.

150 SYNTHETIC PROJECTIVE GEOMETRY (3). Prerequisite, Mathematics 32 or equivalent. A study of forms of the first and second dimensions by synthetic methods. Projective correspondences, poles and polars, metric specializations. *Summer session.* Lasley.

151 ANALYTIC PROJECTIVE GEOMETRY (3). Prerequisite, Mathematics 32 or equivalent. Projective coordinates, projective correspondences, analytic methods applied to forms of first and second dimensions. Special emphasis upon implications in Theory of Equations and Analytic Geometry of Conics. Some line geometry. (1961-1962 and alternate years.) *Fall.* Lasley.

161 ANALYTIC GEOMETRY OF SPACE (3). Prerequisite, Mathematics 32 or equivalent. A study from the analytic point of view of loci in three dimensions, with special emphasis on systems of planes and on quadric surfaces. *Summer.* Lasley.

163 ELEMENTARY POINT-SET THEORY (3). Prerequisite, Mathematics 32 or equivalent. Introduction to the study of point sets on the line and in the plane with applications to the foundations of calculus and analysis. *Fall.* Patty.

164 ELEMENTARY ALGEBRAIC TOPOLOGY (3). Prerequisite, Mathematics 136 and some knowledge of elementary point-set topology. Introductory homology and cohomology; homotopy; cells, cycles, complexes, manifolds in n-dimensional Euclidean space; covering spaces. *Spring.* Patty.

169 THE THEORY AND PRACTICE OF PROGRAMMING (3). Prerequisite, Mathematics 33 or equivalent. This course emphasizes the general structure of computer programming and includes: IT language, flow diagrams, and programming in the IT language; general theory of command languages and associated algorithms; general structure of digital computers; von Neumann's Theories of Automata; artificial intelligence and learning; programming in the basic ERA-1105; arithmetic problems, interpretative programs, libraries of subroutines. *Fall.* Carr.

170 INTRODUCTION INTO NUMERICAL ANALYSIS (3). Prerequisite, Mathematics 32. Interpolation formulas, numerical differentiation and integration, systems of linear equations, algebraic equations, differential equations of first and second order; Fourier-Analysis. *Spring.* Carr.

171 ADVANCED CALCULUS I (3). Prerequisite, Mathematics 32 or equivalent. Limits, continuity, differentials, power series, partial and implicit differentiation, definite and line integrals. *Fall.* Hoyle, Mackie.

172 ADVANCED CALCULUS II (3). Prerequisite, Mathematics 171. Gamma and beta functions; Legendre polynomials; Bessel functions; Fourier series; Lapace's equation; harmonic functions; potential. *Spring.* Hoyle.

173 TOPICS IN APPLIED MATHEMATICS I (3). Prerequisite, Mathematics 171-172 or equivalent. Variational methods; integral equations; integral transforms. *Fall.* Mann.

174 TOPICS IN APPLIED MATHEMATICS II (3). Prerequisite, Mathematics 171-172 or equivalent. Finite difference approximations to boundary value problems—convergence and stability criteria; theory of characteristics; iterative procedures. (1961-1962 and alternate years.) *Spring.* Mann.

175 TOPICS IN ANALYSIS (3). Prerequisite, Mathematics 33 or equivalent. Functional dependence; infinite products and series; improper integrals; fundamental existence theorems for implicit functions and differential equations. *Summer session.* Pettis.

176 FUNCTIONS OF A COMPLEX VARIABLE I (3). Prerequisite, Mathematics 33 or equivalent. Mathematics 163 and 171 are recommended. Analytic properties of the number plane, continuity and integration of functions, elementary mapping, power series, analytic continuation, and properties of analytic functions. *Fall.* Hoyle.

177 FUNCTIONS OF A COMPLEX VARIABLE II (3). Prerequisite, Mathematics 176. Further properties of analytic functions, residues and contours, entire functions, meromorphic functions, conformal transformations, and functions defined by infinite processes. *Spring.* Hoyle.

178 SPECIAL FUNCTIONS (3). Prerequisite, Mathematics 176. A study of the more important properties of Bessel, Hankel, and Neumann functions; the gamma and beta functions; the hypergeometric function; surface and spherical harmonics; Legendre, Laguerre, and Hermite polynomials. (1962-1963 and alternate years.) *Spring.* Mann.

179 SUMMABILITY (3). Prerequisite, Mathematics 172 or 194. Summation of divergent series by averaging processes, and generalization to the methods of Abel, Hausdorff, et al. *Summer session.* Buckholtz.

181 ELEMENTARY THEORY OF NUMBERS I (3). An elementary course in theory of rational integers, divisibility, scales, simplest properties of prime numbers, Diophantine equations, congruences. Applications in elementary mathematics and mathematical games. *Fall.* Brauer.

182 ELEMENTARY THEORY OF NUMBERS II (3). Prerequisite, Mathematics 181. Continuation of Mathematics 181. Quadratic residues, arithmetic theory of binary quadratic forms. Recent results in elementary number theory. *Spring.* Brauer.

186 THEORY OF GROUPS (3). Prerequisite, Mathematics 136 or equivalent. Properties of abstract groups, groups with operators, homomorphism, composition series, the Sylow theorems, direct sums, K-modules, and Abelian groups. *Fall.* Davis.

187 GALOIS THEORY (3). Prerequisite, Mathematics 291. Theory of fields, Galois theory, ideals, and other topics in modern algebra. *Spring.* Davis.

191 VECTOR AND TENSOR ANALYSIS (3). Prerequisites, Mathematics 141 and 161 or equivalent. Vector and tensor algebra applied to geometry and physics. Students taking this course should be familiar with ordinary differential equations and should have some knowledge of analytic geometry of three dimensions. *Spring.* Hoyle.

193 MATHEMATICAL ANALYSIS I (3). Prerequisite, Mathematics 33 or equivalent. Introductory set theory and topology in finite dimensional Euclidean spaces; continuity and differentiability of functions in these spaces; related mean-value and extremum problems. *Fall.* Buckholtz.

194 MATHEMATICAL ANALYSIS II (3). Prerequisite, Mathematics 193. Continuation of Mathematics 193, including connectedness and separation theorems; Riemann-Stieltjes integration; content and outer measure; Green's Theorem in Jordan regions. *Spring.* Buckholtz.

196 THEORY OF FUNCTIONS OF REAL VARIABLES I (3). Prerequisite, Mathematics 172 or 194. *Fall.* Mann.

Courses for Graduates

206 ANALYTIC FUNCTIONS I (3). Prerequisite, Mathematics 163, or 171, or 193. Complex numbers and functions, convergence and continuity, paths and integrals, connectedness, analytic and entire functions, triangles and polygons, fundamental theorem of algebra, contours, elementary functions. *Fall.* Mac Nerney.

207 ANALYTIC FUNCTIONS II (3). Prerequisite, Mathematics 206. Power series, residues and singularities, analytic mapping of simple regions, convergence continuation, linear-fractional transformations and meramorphic functions, analytic relations, analytic continuation. *Spring.* Mac Nerney.

208 CONFORMAL MAPPING (3). Prerequisite, Mathematics 207. Multiply connected regions, homotopy and fundamental groups, automorphic functions, periodicity. (1961-1962 and alternate years.) *Fall.* Mac Nerney.

209 NORMAL FAMILIES (3). Prerequisite, Mathematics 208. Triangle nets and modular functions, normal families of analytic and meromorphic functions, exceptional values, uniformization. (1961-1962 and alternate years.) *Spring.* Mac Nerney.

210 HILBERT SPACES (3). Prerequisite, Mathematics 207. Axiomatic foundations, continuous linear transformations, relationship with analytic functions and infinite matrices. (1962-1963 and alternate years.) *Fall.* Mac Nerney.

211 CONTINUED FRACTIONS (3). Prerequisite, Mathematics 210. Analytic theory, convergence problems, positive definiteness, relationship with infinite matrices and moment problems. (1962-1963 and alternate years.) *Spring.* Mac Nerney.

213 INTRODUCTORY GENERAL ANALYSIS (3). Prerequisite, permission of instructor or graduate adviser. Spaces carrying at least two of the following structures: a partial order, a topology, an associative binary operation; structural analysis of associated function spaces. (1961-1962 and alternate years.) *Fall.* Pettis.

214 INTRODUCTION TO FUNCTIONAL ANALYSIS (3). Prerequisite, Mathematics 213. An introduction to Banach spaces and Banach algebras and to certain classes of function spaces. (1961-1962 and alternate years.) *Spring.* Pettis.

226 FOUNDATIONS OF GEOMETRY (3). A study of rigorous logic in geometry; postulates, systems of geometry. Contributions of Pasch, Peano, Hilbert, Veblen, and the postulation school. *Summer session.* Whyburn.

232 GENERAL THEORY OF ALGEBRAIC NUMBERS (3). Prerequisites, Mathematics 131 and 181. Algebraic numbers and transcendental numbers; general algebraic fields; theory of ideals; discriminants and unities of algebraic fields. *Spring.* Brauer.

233 NUMBER THEORY OF SPECIAL FIELDS (3). Prerequisites, Mathematics 131 and 181. Transcendence of e and π. Number theory in Euclidean fields, quadratic, cubic, and cyclotomic fields. *Spring.* Brauer.

234 SOME RECENT RESULTS IN NUMBER THEORY (3). *Spring.* Brauer.

235 SOME RECENT RESULTS IN ALGEBRA (3). *Spring.* Brauer.

236 HIGHER PLANE CURVES (3). Prerequisite, Mathematics 151. Application of projective geometry to curves of degree higher than two; special types of curves; relationships; properties. (1962-1963 and alternate years.) Lasley.

246 MODERN HIGHER ALGEBRA (3). Prerequisite, Mathematics 131 or 136. A course dealing with certain fundamental aspects of modern algebra, including the topics of groups, rings, and fields. *Spring.*

247 THE THEORY OF MATRICES (3). Prerequisite, Mathematics 147. A course designed to give the student a thorough grounding in some of the recent and most important results in the study of algebraic matrices. *Spring.*

261 DIFFERENTIAL GEOMETRY (3). Prerequisites, Mathematics 141 and 161. A study of the metric differential properties of curves, surfaces, and curves on surfaces by means of differential equations. *Spring.* Lasley.

267 THEORY OF FUNCTIONS OF REAL VARIABLES II (3). Prerequisite, Mathematics 196. *Spring.* Mann.

268 ADVANCED DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 267 or equivalent. Fundamental existence theorems for ordinary equations, boundary value problems, applications to classical problems of mathematical physics. *Fall and summer.* Whyburn.

281 GENERAL TOPOLOGY I (3). A general introduction to point-set pheoretic methods and axiomatic foundations. *Fall.* Jones.

282 GENERAL TOPOLOGY II (3). Prerequisite, Mathematics 281. A continuation of Mathematics 281. *Spring.* Jones.

283 GENERAL TOPOLOGY III (3). Prerequisite, Mathematics 282. A continuation of Mathematics 282. (1962-1963 and alternate years.) *Fall.* Jones.

284 GENERAL TOPOLOGY IV (3). Prerequisite, Mathematics 283. A continuation of Mathematics 283. (1962-1963 and alternate years.) *Spring.* Jones.

287 ALGEBRAIC TOPOLOGY (3-3). Prerequisite, Mathematics 164, 186, 282.
288 Homology, cohomology, homotophy, covering spaces, fiber spaces. *Fall and spring.* Patty.

296 THEORY OF RINGS (3). Prerequisite, Modern Algebra or group Theory. *Fall.* Mewborn.

298 THE THEORY OF ALGEBRAS (3). Prerequisite, Mathematics 246 or 291 or equivalent. The study of finite dimensional algebras, including: representation theory, the regular representations, structure theory, the Wedderburn Theorems, duality theory, and the theory of modules. *Spring.*

SEMINARS AND THESES (3). 351, Whyburn; 352, Mac Nerney; 356, Patty; 357, Jones; 361, Pettis; 367, Garner; 368, Buckholtz; 369, Carr; 371, Mewborn; 372, Hoyle; 376, Mackie; 377, Hill; 381, Brauer; 382, Cameron; 387, Mann.

DEPARTMENT OF MUSIC

Professors: GLEN HAYDON,[1] *Chairman,* EARL SLOCUM, J. P. SCHINHAN,[2] W. S. NEWMAN, WILTON MASON
Associate Professors: JOEL CARTER, EDGAR ALDEN
Assistant Professors: GLENN E. WATKINS,[3] HERBERT W. FRED
Instructor: LILIAN P. PRUETT
Graduate Assistants: MARY GRAY CLARKE, CENIETH ELMORE, EARL GATES, JAMES GIBBS, PHILIP KNISELEY, EDWARD KOTTICK, GLORIA LUPO, JOAN MOSER, EDGAR STRYKER
Assistants: DIANE ADAMS, EDDIE BASS, CECIL GAYLE, JOHN HANFT, JOHN MARTIN, WILLIAM MARTIN, DAVID PIZARRO, WILLIAM ROUMILLAT

The courses in music are designed to serve four purposes in the University: (a) to provide thorough training in the practice, litera-

1. Kenan Professor.
2. Professor, Emeritus.
3. Absent on leave, 1961-1962.

ture, theory, and history of music for the student who elects music as his major subject in the liberal arts curriculum leading to the A.B. degree; (b) to provide a solid foundation for the student who wishes to do graduate work in the more scholarly, technical, or creative aspects of music; (c) to provide the essential background in professional and allied subjects for the student who chooses to teach music or follow some related career; and (d) to provide students in other departments with elective courses in music designed to add cultural value and enjoyment to the general liberal arts program.

Courses leading to the A.B. degree with music as the major: Students who take music as the major will modify the regular program for the first two years in order to begin music their first year. They normally will take English 1, 2, a foreign language, Music 11-12 and 14-15, and mathematics or Latin or Greek. Courses in the regular freshman program postponed to make way for the music courses are taken at some later time. Similar arrangements will be made in the sophomore year to provide for Music 31-32, 44-45, and 47-48.

The undergraduate major in music consists of from eighteen to twenty-four semester hours beyond the freshman-sophomore requirements and includes Music 48, 61, 64, 71, 74, and 101. Attention is called to the special requirements in applied music as stated on page 206.

Course leading to the A.B. in Education degree with music as the major: Candidates for the A.B. degree in liberal arts with music as the major may qualify for state certification in public school music by taking certain additional courses in general education and music education. These courses ordinarily require one additional semester of work, or one summer of work during the four years. As an alternative the student may qualify for state certification in the usual eight semesters by taking an A.B. in Education (see page 70) with music as the major. In either case, requirements for the major are the same. At the beginning of the junior year the student must decide whether he will elect the A.B. or the A.B. in Education program. Individual requirements in the curriculum are worked out in conference with the student's advisers in music and in education. See "School of Education" in Part III.

Honors in Music: Students interested in becoming candidates for the A.B. degree with honors in Music should read the general regulations governing the honors program in the College of Arts and Sciences and should consult the Chairman of the Department of Music for specific modifications of this program as applied to music.

Course leading to the B.M. degree: The Department offers the B.M. degree to students meeting the applied music requirements in con-

formity with the National Association of Schools of Music. This degree is awarded in conjunction with or after the A.B. degree in a five year program. Students must satisfy the requirements for this degree by giving such public recitals and by passing such examinations as may be specified by the Department. Students interested in this degree should apply to the Department of Music for particulars.

Courses for Undergraduates

4 FUNDAMENTALS OF MUSIC FOR ELEMENTARY TEACHERS[4] (3). A basic music course for prospective classroom teachers other than music majors. Includes rudiments of music, the child voice, vocal and instrumental materials, rhythm band and simple melody instruments, and observation. *Fall and spring.* Carter.

11 12 NOTATION, SIGHT-SINGING, AND DICTATION (1½ each). No prerequisite. An introductory course, intended to provide a working knowledge of rhythms, intervals, scales, and the common terminology of music, with attention to styles and literature. *Three laboratory hours a week, fall and spring.* Pruett, Clarke.

14 15 HARMONY (3 each). Prerequisite or corequisite, Music 11-12. A first course in the elements of musical composition, including triads, inversions, seventh chords, dominant dissonances, non-harmonic tones, modulation, keyboard harmony, and short compositions. *Fall and spring.* Fred.

31 32 NOTATION, SIGHT-SINGING, AND DICTATION (1 each). Prerequisite, Music 11-12. Continuation of Music 11-12, with work in clef-reading, rhythm, intervals, chords, and melodies, utilizing practical exercises from musical literature. *Two laboratory hours a week, fall and spring.* Slocum.

41 MUSIC APPRECIATION[4] (3). No prerequisite. An introduction to musical understanding, emphasizing elements, styles, and forms. Integrated with the other arts and the humanities in general. Lectures, reading, recordings, and concerts. *Fall and spring.* Newman, Pruett, Carter.

44 45 ADVANCED HARMONY (3 each). Prerequisite, Music 11-12, Music 14-15, corequisite, Music 31-32. A continuation of Music 14-15, including chromatic harmony, advanced modulation, and newer harmonic resources. *Fall and spring.* Alden.

47 48 THE HISTORY OF MUSIC (3 each). Survey from the origins to 1600, and from 1600 to the present. Includes readings, individual reports, films, recordings, and demonstrations in the various style periods. *Fall and spring.* Mason.

55 MUSIC APPRECIATION: OPERA AND ORATORIO[4] (3). No prerequisite. An introductory course for the layman, centered around opera and oratorio in local concerts, current radio and television programs, and new record releases. *Fall.* Alden, Carter.

56 MUSIC APPRECIATION: SYMPHONY AND CHAMBER MUSIC[4] (3). No prerequisite. An introductory course for the layman, based on the styles and literature of instrumental music from Haydn to the present day. Illustrated through concerts, radio, television, and recent recordings. *Fall and spring.* Alden.

4. Not offered to music majors.

61 MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE (3). Prerequisite, Music 14-15. Study and practice of vocal contrapuntal technique of the sixteenth century, with exercises in the five species and composition of simple motets. *Fall.* Pruett.

64 TONAL COUNTERPOINT (3). Prerequisite, Music 14-15. Study and practice of eighteenth-century contrapuntal technique, with particular reference to the style of Bach. Writing of two- and three-part inventions. *Spring.* Slocum.

71 ORCHESTRATION AND ELEMENTARY CONDUCTING (3). Prerequisite, Music 44-45. The study of instrumental ranges and techniques. Arranging for orchestra, band, and other instrumental ensembles. Practical experience in baton technique. *Spring.* Slocum.

74 ANALYSIS AND COMPOSITION IN THE SMALLER FORMS (3). Prerequisite, Music 44-45. Examination of representative Classic and Romantic works. Practical experience in the writing of binary, ternary, and rondo forms. *Fall.* Slocum.

Courses in Music Education

Attention is called to the Music Education courses listed on pages 66, 67 in this catalogue as Education 75, 76, 78, 79, 120, 121.

Courses for Graduates and Advanced Undergraduates

101 INTRODUCTION TO MUSICOLOGY (3 each). Prerequisites, one foreign
102 language and some proficiency in musical theory and performance. 101 includes especially acoustics, psychology, and aesthetics in music. 102 emphasizes theories of music theory, pedagogy, comparative musicology, and music history. Musical bibliography is stressed in both courses. *Fall and spring.* Haydon.

103 FOLK MUSIC OF THE ORIENTAL AND EUROPEAN COUNTRIES (3). A study of the art music of the Oriental countries and of the folk music of these and the various European regions. Lectures, readings, and the study of printed or recorded music. (1962-1963 and alternate years.) *Spring.* Mason.

104 FOLK MUSIC OF THE BRITISH ISLES AND THE UNITED STATES (3). Comparative study of the folksongs of the British Isles and those of the United States (especially the Southern region). Lectures, readings, and the study of printed or recorded music. (1961-1962 and alternate years.) *Spring.* Mason.

121 STUDIES IN THE HISTORY OF MUSIC (3 each). Prerequisites, Music
122 45, 47, and 48. Investigation of a particular aspect or phase of music history
123 such as opera, performance practices, Ravel and Debussy, or the Baroque era. 121, 122, *fall;* 122, 123, *spring.* Newman, Mason.

Courses for Graduates

201 SPECIAL STUDIES. The Department is ready to assist and advise competent graduate students who may propose plans for either research or creative work which meet with its approval. *Hours and credit to be arranged.* Staff.

214 APPLIED HARMONY (3). The logic of chordal progressions as applied to musical compositions. *Fall.* Fred.

261 ADVANCED MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE (3). A study of the vocal works of Palestrina, Lassus, and other sixteenth-century composers, with practical exercises in the composition of motets and masses. *Fall.* Mason.

264 ADVANCED TONAL COUNTERPOINT (3). A study of canon and fugue, with special emphasis on the works of Bach. Includes practical exercises in these forms. *Fall.* Slocum.

271 ADVANCED ORCHESTRATION (3). Prerequisites, Music 214, 261, 264. *Spring.* Slocum.

274 ADVANCED COMPOSITION (3). Prerequisites, Music 214, 261, 264. *Spring.* Staff.

299 THESIS (3 or 6). Required. *Fall and spring.* Staff.

301 SEMINAR IN MUSICOLOGY (3 each). Research, both historical and systematic, as applied to a specific era, style, form, composer, or other branch of musical knowledge. 301, 302, *fall;* 303, *spring.* Haydon.

Applied Music Requirements

The courses in applied music are open to students in any department of the University. This work is regarded not only as technical training in performance, but also as a comprehensive survey of the standard literature for the particular instrument or ensemble group. Credit is based primarily on the stage of advancement and the number of lessons and hours of practice a week. Credits to meet the requirements for high school teachers' certificates are reckoned on the basis of 1½ semester hours for one lesson a week per semester.

For those whose major is not music a total credit not to exceed six semester hours may be counted under electives in the A.B. curriculum. Those whose major is music will offer at least eight semester hours in applied music but not over sixteen semester hours in this field, of which not more than eight may be ensemble courses. All students with majors in music, unless given special permission by the Chairman of the Department, continue individual instruction in applied music throughout the four years. Students planning to teach instrumental music in the public schools will arrange their schedules for the study of the wind and stringed instruments in consultation with the Department.

The general prerequisite for entrance into the first-year courses is the ability to perform music rated as grade three for the particular instrument. A specific course of study for any instrument will be sent upon request. Students who are not yet at grade three level will repeat the preparatory course without credit until they qualify for the freshman course. The candidate for the A.B. degree with a major in music must complete as a minimum the freshman course in his chosen field of applied music. Students electing some instrument other than piano for their work in applied music must demon-

strate sufficient pianistic ability to enable them to meet the practical requirements of the course to be pursued. This is interpreted to mean the ability to play at sight hymns or compositions of similar difficulty, and to utilize the basic techniques of keyboard harmony.

Students majoring in music for an undergraduate degree are required to participate in appropriate musical organizations of the Department and their scheduled concerts, and to attend the weekly student recitals.

FEES

Fees for individual instruction are: $37.25 per semester for one lesson a week; $74.50 per semester for two lessons a week. Fee for one daily practice period (room with piano), $6.00 per semester; fee for two hours daily practice, $10.50 per semester. Other fees in proportion. Fee for six hours practice a week on Reuter four-manual organ, $31.00 per semester; on Allen or Reuter practice organ, $24.50 per semester; on Estey practice organ, $11.25 per semester. Arrangements for applied music are made in the Office of the Department of Music on the last day of regular registration and the day following.

INDIVIDUAL INSTRUCTION

A PREPARATORY ORGAN (no credit). *One or two half-hour lessons and six or twelve hours of practice a week, every semester.* Pizzaro.

1A, 2A FIRST-YEAR ORGAN (½ or 1). Prerequisite, ability to play music for a keyboard instrument of the difficulty of Heller, Op. 45, 46, 47; Bach, Two-Part Inventions; scales and arpeggios in moderate tempo; simple hymns (at sight). *Value, one-half or one semester hour, respectively, for one or two lessons and six or twelve hours of practice a week.* Pizzaro.

21A, 22A SECOND-YEAR ORGAN (½ or 1). Prerequisite, Music 1A-2A. *Value and hours as in 1A-2A.* Pizzaro.

51A, 52A THIRD-YEAR ORGAN (½ or 1). Prerequisite, Music 21A-22A. *Value and hours as in 1A-2A.* Pizarro.

81A, 82A FOURTH-YEAR ORGAN (½ or 1). Prerequisite, Music 51A-52A. *Value and hours as in 1A-2A.* Pizarro.

91A, 92A FIFTH-YEAR ORGAN (3 each). Prerequisite, Music 81A-82A. Required of candidates for the B.M. degree. Pizarro.

Similar numbering and description with regard to value, hours and prerequisite work apply to each of the courses B, C, D, and E.

B PIANO. Newman, Mason, Adams, Elmore, Gates, Lupo, Pruett, Stryker.

C VOICE. Carter, Kniseley.

D VIOLIN OR OTHER STRINGED INSTRUMENT. E. Alden, Clarke, W. Martin.

E FLUTE OR OTHER BAND OR ORCHESTRAL INSTRUMENT. Slocum, Fred, Kottick, J. Martin, Hanft, Roumillat.

81VR VOCAL REPERTOIRE (½ or 1). Prerequisite, permission of the in-
82VR structor. Mason.

91VR VOCAL REPERTOIRE (3). Prerequisite, permission of the instructor.
92VR Mason.

CLASS INSTRUCTION

For students desiring to complete the general piano requirements, for those in the general instrumental course, and for those wishing special training in voice, class instruction will be offered as far as practicable. Applications for admission to any of these classes should be made at the Office of the Department of Music as soon after registration as possible. Hours to be arranged.

ENSEMBLE GROUPS

1F FIRST-YEAR BAND (½ each). Prerequisite, approval of instructor based
2F upon an audition given at the beginning of each semester. *A minimum of two hours a week through one semester.* Fred, Kottick.

21F SECOND-YEAR BAND (½ each). *Value and hours as in 1F-2F.* Fred,
22F Kottick.

51F THIRD-YEAR BAND (½ each). *Value and hours as in 1F-2F.* Fred, Kottick.
52F

81F FOURTH-YEAR BAND (½ each). *Value and hours as in 1F-2F.* Fred,
82F Kottick.

Similar numbering, prerequisite work, value, and hours apply to each of the following courses in applied music.

G ORCHESTRA. Slocum, Alden.

H GLEE CLUB. Carter.

I PIANO ENSEMBLE OR OTHER INSTRUMENTAL ENSEMBLE. Staff.

J CHORUS. Mason.

K SYMPHONIC WIND ENSEMBLE. Fred.

DEPARTMENT OF NAVAL SCIENCE

Professor: JOHN C. SPENCER, *Captain,* USN
Associate Professor: FRANK W. HOLLOWELL, JR., *Commander,* USN
Assistant Professors: LEMUEL C. SHEPHERD III, *Major,* USMC; RALPH MOORE, *Lieutenant Commander,* USN; JAMES W. HARKINS, *Lieutenant, Supply Corps,* USN; GEORGE A. SMITH, *Lieutenant (junior grade),* USNR; PETER S. SHEARER, *Lieutenant Commander,* USN; HAYWOOD HARRELL, *Lieutenant,* USN
Instructors: HUGER S. SUGGS, QMC, USN; JAMES H. WOODY, FTC (SS), USN; CALVIN L. ROGERS, YN1, USN; ALLEN E. SMITH, GMC, USN; SAMUEL O. SLAY, SKC, USN; DONALD C. PARKER, GY SGT, USMC

General Information

The University of North Carolina unit of the Naval ROTC was established in 1941, as one of fifty-three college and university units authorized by Congress in 1926. The purpose of the Naval Reserve

Officers Training Corps is to provide a source of highly qualified officers for the Naval service. Students who obtain a baccalaureate degree in approved subjects, and who satisfactorily complete the required course of study in Naval Science and participate in the summer training cruises, may be commissioned in the Navy or the Marine Corps or their reserve components.

Students are enrolled in the Naval ROTC in two categories: Regular and Contract.

Regular Category: These students are selected by a nationwide competitive examination and interview process. Normally all high school seniors and high school graduates under age twenty-one are eligible. Applications must be submitted by early November of each year.

Contract Category: These students are selected generally by an interview process from those students applying for enrollment during the summer preceding their entrance into the University or during Freshman Orientation Week. Students in this category are considered excellent prospects for the Regular Category should they desire to make application to enter this selection process.

Regardless of the category, all students enrolled in the Naval ROTC receive the same instruction, wear the same uniform, and must meet the same academic requirements with the exception that students enrolled as Contract NROTC students, while not required to complete one course in physics, are encouraged to do so.

General Eligibility Requirements

Each candidate for the Naval ROTC must:

1. Be a male citizen of the United States.
2. At the time of his enrollment, if a minor, have the consent of his parent or guardian.
3. Be not less than seventeen nor more than twenty-one years of age on July 1 of the year in which he enters the program. (Contract student may be enrolled if sixteen years of age on July 1 of the year in which he enters the program.)
4. Gain his own admittance to the University.
5. Agree to remain unmarried until commissioned.
6. Enter into a contract with the Secretary of the Navy, agreeing to accept a commission, if offered.
7. Be physically qualified, in accordance with the requirements for the U. S. Naval Academy.
8. If a contract student, agree to accept a commission as an ensign, U. S. Naval Reserve or second lieutenant, U. S. Marine Corps or U. S. Marine Corps Reserve, and serve three years on active duty upon completion of college training.

9. If a regular student, agree to accept a commission, if offered, and to serve at the pleasure of the President as an ensign, U. S. Navy, or second lieutenant, U. S. Marine Corps.

Further information regarding application for and admission in the Naval ROTC may be obtained from any Navy Recruiting Station, any established Naval Reserve Unit, or by addressing an inquiry to the Professor of Naval Science, University of North Carolina, Chapel Hill, N. C.

Campus Status

Each Naval ROTC student is required to wear a Naval Midshipman uniform while attending scheduled drill and Naval Science laboratory exercises and at certain other designated campus functions that are associated with the Naval ROTC Unit. Other than the above, each student leads the same campus life as students not enrolled in the Naval ROTC. He may participate in any scholarship aid program and, if necessary, may obtain outside employment to assist in financing his educational expenses.

Military Status

A student enrolled in the Regular NROTC category is appointed a Midshipman, Naval Reserve, and is, in fact, a member of the national military organization; a student enrolled in the Contract category has the status of a civilian who has entered into a contract with the Secretary of the Navy, and as such, has no official military status. Both categories are referred to as "NROTC Students" or "Midshipmen" and both categories wear the Midshipman uniform as required.

Draft Deferment

A student enrolled in the Naval ROTC will be deferred from the draft (Selective Service Act of 1948 and Universal Military Training Act of 1951) if:

1. He pursues the Naval ROTC courses for four full years, including the summer training period applicable to his status as contract or regular student.
2. As a contract student, he signs an agreement to accept a commission, to retain this commission for a period of six years, and to serve not less than three years on active duty as an officer.
3. As a regular student, he signs an agreement to accept a commission, to retain this commission for a period of six years, and to serve not less than four years on active duty as an officer.

Summer Training

Regular students: All regular students are required to take two summer cruises and one summer period of aviation-amphibious indoctrination, usually of eight weeks' duration each. The cruises are made on board modern warships. The aviation indoctrination is usually conducted at Corpus Christi, Texas, and the amphibious indoctrination is usually conducted at Little Creek, Virginia.

Contract students: Contract students are required to take one summer cruise during the summer between their junior and senior years, the cruise being of approximately six weeks' duration.

Travel expenses for both regular and contract students from the University to the summer training site and return are furnished by the government. In addition, all students receive active duty pay during summer training amounting to approximately $75.00 per month in the case of contract students and $110 per month in the case of regular students.

Emoluments, Textbooks, and Uniforms

While students in each of the categories of Naval ROTC students receive certain emoluments and certain defrayments of expenses while so enrolled, it is emphasized that *this is not a scholarship program.* The Navy expects full repayment in terms of obligated service for all financial expenditures.

Regular category students: For these students the Navy pays the cost of tuition, fees, and textbooks. Necessary uniforms are provided and students receive retainer pay at the rate of $600 per year. For information of students in this category, it is estimated that the minimum additional annual cost each year to the student while attending the University is approximately $450.

Contract category students: For these students the Navy provides the necessary uniforms and Naval Science textbooks. During the last two years they are paid a subsistence allowance of $27.00 per month.

Curriculum

The University does not grant a degree in the field of Naval Science. Students in the Naval ROTC major in areas approved by the Professor of Naval Science and take Naval Science courses as electives. They are governed by the rules of the appropriate division regarding the distribution of such courses among departmental, divisional, and nondivisional courses.

Specifically, the eight courses taken in the Department of Naval Science by a student who completes the normal four-year program prescribed by the Naval ROTC represent 25 semester hours of academic credit entered in the student's permanent record. Six of these

courses (representing 19 semester hours) may be offered as electives for graduation credit by the student who satisfactorily completes the Naval ROTC program and, at the same time, meets all requirements of his particular degree program. The other two Naval Science courses (six semester hours) represent an addition to the minimum requirement for graduation.

The 19 semester hours graduation credit is secured by substitution of Naval Science courses for academic electives. In the General College, the Naval ROTC student may offer three Naval Science courses (including Psychology 26, replacing Naval Science 202), representing 10 semester hours as electives. In the College of Arts and Sciences or undergraduate professional school, he may offer three additional Naval Science courses, representing nine semester hours. Distribution of these electives must conform to the student's particular degree pattern and must be approved by his academic dean or adviser.

All students take the same basic courses in the first two years. In the junior and senior years students who desire to apply for commissions in the Marine Corps or Naval Supply Corps may elect those courses designated by an M or S suffix after the course number. All courses are three lectures and two laboratory periods a week, except 202 (see below).

101 PRINCIPLES OF SEA POWER (3). A study of Naval customs and traditions. Sea power and its use as an instrument of national policy. *Fall.* Shearer.

102 THE HISTORY OF SEA POWER (3). A survey of Naval and Maritime history emphasizing the evolution of sea power and its influence upon history. *Spring.* Shearer.

201 NAVAL WEAPONS SYSTEMS (3). Relates principles of physics and mathematics to ordnance design, electronic detection devices, guided missile systems, and nuclear explosions. *Fall.* Smith.

202 GENERAL PSYCHOLOGY (For description see Psychology 26). (4). *Three lectures and one laboratory period; plus two additional laboratory periods a week in Naval weapons. Spring.* Civilian members of the University faculty.

301 PRINCIPLES OF NAVAL ENGINEERING (3). Nuclear and thermodynamic principles and their application to Naval engineering systems; theoretical damage control and ship stability. *Fall.* Harrell.

301M EVOLUTION OF THE ART OF WAR (3 each). A survey of the evolution
302M of weapons, strategy, tactics and material of land warfare; illustration of the classic principles of war by a study of selected battles and campaigns. *Fall.* Shepherd.

301S NAVY SUPPLY SYSTEM; SUPPLY MANAGEMENT AFLOAT (3). Introduction and analysis of the Navy Supply System organization. Principles and operation of Supply Management Afloat. *Fall.* Harkins.

302 NAVIGATION AND NAUTICAL ASTRONOMY (3). Principles, methods, and problems of dead reckoning, piloting, electronic and celestial navigation. *Spring.* Harrell.

302S SUPPLY MANAGEMENT AFLOAT (3). Prerequisite, 301S. Continuation of 301S emphasizing material and financial responsibility of the Supply Corps business manager. *Spring.* Harkins.

401 NAVAL OPERATIONS AND TACTICS (3). Theory of relative motion, methods of fleet communication, concepts of operational staff planning. Basic Naval tactics and maneuvers. *Fall.* Moore.

401M AMPHIBIOUS WARFARE (3). History of amphibious warfare with emphasis on strategic decisions concerning the use of amphibious attacks. *Fall.* Shepherd.

401S PRINCIPLES AND PROBLEMS OF NAVY RETAIL MANAGEMENT (3). Organization, administration and operation of retail merchandizing afloat, emphasizing budgeting, cost control, operational analysis and evaluation, and retail research. *Fall.* Harkins.

402 PRINCIPLES AND PROBLEMS OF LEADERSHIP (3). A study of the psychological principles of human relations, stressing problems of command, management, and moral leadership. *Spring.* Moore.

402M AMPHIBIOUS WARFARE, LEADERSHIP, MILITARY JUSTICE (3). Application of the principles of amphibious warfare in selected examples from modern history. Principles and procedure in administering military law. Principles of military leadership. *Spring.* Shepherd.

402S PRINCIPLES AND PROBLEMS OF LEADERSHIP (3). (Meets with 402; for description see above.)

DEPARTMENT OF PATHOLOGY [1]

Professors: K. M. BRINKHOUS,[2] *Chairman,* J. B. BULLITT,[3] J. B. GRAHAM
Visiting Professor: H. Z. LUND
Associate Professors: W. R. BENSON, R. D. LANGDELL, GEORGE D. PENICK, M. C. SWANTON, G. P. VENNART, R. H. WAGNER
Visiting Associate Professors: F. G. GERMUTH, GEORGE D. LUMB
Assistant Professors: W. D. HUFFINES, N. F. RODMAN
Visiting Assistant Professors: W. W. FORREST, J. U. GUNTER
Instructors: J. D. GERATZ, A. S. LINEBERGER, S. W. NYE, J. C. PICKREL
Research Associates: J. C. PAINTER, H. R. ROBERTS, W. P. WEBSTER
Post-Doctoral Fellows: R. C. BROWN, F. G. DALLDORF, J. H. EVANS, C. F. GILBERT, L. HARRIS, L. D. LOHR, R. F. NOEL, D. H. RICHARDSON, C. W. ROBINSON, M. B. SCALES, R. L. WEST, F. K. WIDMANN
Consultant in Oral Pathology: G. C. HUNTER

Courses for Undergraduates

52 CLINICAL PATHOLOGY (3). Prerequisites, general chemistry and one course in zoology. A course designed to give undergraduate students an introduction to hematology, urinalysis, and some of the technical procedures commonly employed in hospital and biological research laboratories. *One lecture and four laboratory hours a week, spring semester.* Robinson, West.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.
2. Alumni Distinguished Professor of Pathology.
3. Professor, Emeritus.

90ab PATHOLOGY FOR PHYSICAL THERAPY STUDENTS (5). Prerequisites, anatomy, histology, and physiology. A series of lectures and demonstrations of pathologic processes. *Four and a half lecture, and one laboratory hours a week, fall quarter; two lecture and one laboratory hours a week, winter quarter.* Geratz.

Courses for Graduates and Advanced Undergraduates

161abc PATHOLOGY (15). Prerequisites, anatomy, histology, physiology, biochemistry. *Four lecture, two conference, and nine laboratory hours a week, fall and winter quarters; one and one-half hour clinico-pathologic conference, spring quarter.* Staff.

162 EXPERIMENTAL PATHOLOGY.

NOTE: Hours, credits, and instructor to be arranged.

170 SPECIAL AND CLINICAL PATHOLOGY (3⅔). Prerequisite, Pathology 161a. Designed for dental students. *Three lecture and five laboratory hours a week, winter quarter.* Staff.

Courses for Graduates

211 SURGICAL PATHOLOGY (3⅓). Prerequisite, Pathology 161a. *Two conference and six laboratory hours a week, fall, winter, spring, and summer quarters.* Staff.

212 AUTOPSY PATHOLOGY (3⅓). Prerequisite, Pathology 161a. *Two conference and six laboratory hours a week, fall, winter, spring, and summer quarters.* Staff.

220 NEUROPATHOLOGY (3⅓). Prerequisite, Pathology 161a. Systematic study of the more common diseases of the nervous system, utilizing a gross specimen collection, a microscopic slide set, current autopsy and surgical specimens, and histochemical laboratory. *Two conference and six laboratory hours a week, spring and summer quarters.* Swanton.

221 HEMATOPATHOLOGY (3⅓). Prerequisite, Pathology 161a. A tutorial course to introduce the advanced student to techniques and problems of disorders of the blood. This will cover many aspects of immunohematology, disorders of erythrocytes, disorders of leukocytes and bone marrow studies. *Two conference and six laboratory hours a week, fall quarter.* Langdell.

222 HUMAN GENETICS AND CONSTITUTIONAL PATHOLOGY (3⅓). Prerequisite, Pathology 161a. A tutorial course designed to meet the needs of the student desiring an introduction to the field of human genetics. This includes elementary statistics, basic genetic theory and practical field work in obtaining relevant family information from persons, archives and census records, related to constitutional pathology. *Two conference and six laboratory hours a week, fall quarter.* Graham.

223 SPECIAL METHODS IN PATHOLOGY (3⅓). Prerequisite, Pathology 161a. Conducted on a tutorial basis, with the aim of providing experience with specialized techniques including histochemistry, electron microscopy, fluorescent and phase microscopy, chromatography, electrophoresis, and ultracentrifugation. *Two conference and six laboratory hours a week, spring quarter.* Benson, Huffines, Langdell, Wagner.

301 SEMINAR IN PATHOLOGY (2). Prerequisite, Pathology 161a. *Three hours a week, fall, winter, and summer quarters.* Staff.

302 RESEARCH IN PATHOLOGY (3⅓ or more each). Prerequisite, permis-
303 sion of the Department. *Ten laboratory hours a week, fall, winter, spring,*
304 *and summer quarters.* Staff.

DEPARTMENT OF PHARMACOLOGY[1]

Professor: T. C. BUTLER, *Chairman*
Associate Professors: F. W. ELLIS, T. Z. CSAKY,[2] B. BAGGETT
Assistant Professors: J. B. HILL, W. J. WADDELL
Instructor: W. J. MURRAY

Course for Undergraduates

55 PHARMACOLOGY (3½). Prerequisites, all preceding courses in chemistry, zoology, bacteriology, and physiology in the pharmacy curriculum. A course for pharmacy students. *Two lecture and three laboratory hours a week, spring semester.* Staff.

Courses for Graduates

134 PHARMACOLOGY (3⅔). A course for dental students. *Four lecture and three laboratory hours a week, winter quarter.* Staff.

171 PHARMACOLOGY (7⅓). A course primarily for medical students. *Eight lecture and six laboratory hours a week, spring quarter.* Staff.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.
2. Resigned February 28, 1962.

DEPARTMENT OF PHILOSOPHY

Professors: E. M. ADAMS, *Chairman,* S. A. EMERY
Visiting Professor: W. H. POTEAT[1]
Associate Professors: M. A. NATANSON,[2] J. L. SAUNDERS
Assistant Professors: E. C. LUSCHEI, JOHN P. DREHER, RICHARD A. SMYTH
Part-time Instructors: J. H. HALL, D. H. KIM, HOWARD PASPESEL, R. F. RICKERT, G. C. R. SEPHTON
Graduate Assistant: H. J. HARRIS

The Department of Philosophy is a member of each division of the College of Arts and Sciences. Accordingly, an undergraduate student planning a major in philosophy will elect this Department as in one of these divisions and will be governed by the rules of that division regarding the distribution of his work among departmental, divisional, and nondivisional courses. Each student will decide his junior and senior program in consultation with his adviser. Courses 56, 58, 101, and 102 are recommended for all undergraduate majors and are prerequisites for any graduate major program in philosophy. Courses 21 and 22 are recommended to General College students who may be thinking of majoring in philosophy and are required (in addition to six other courses in philosophy) for an undergraduate major in the subject. For students not planning to major in philosophy, 21 is recommended as giving training in logical rigor, 22, 41, and 42 as

1. Fall semester, 1961-1962.
2. Absent on leave, 1961-1962.

introducing the student to philosophical methods and subject-matter. Prospective candidates for advanced degrees in philosophy should consult the Graduate School Catalogue.

Courses for Undergraduates

A. Systematic Courses

21 INTRODUCTORY LOGIC (3). *Fall and spring.* Staff.

22 INTRODUCTORY ETHICS (3). *Fall and spring.* Staff.

41 INTRODUCTION TO PHILOSOPHY: A PROBLEMS-APPROACH (3). *Fall and spring.* Staff.

42 INTRODUCTION TO PHILOSOPHY: AN HISTORICAL APPROACH (3). *Fall and spring.* Staff.

52 INTRODUCTION TO THE PHILOSOPHY OF RELIGION (Religion 52) (3). An inquiry into the philosophical foundations of religious experience. Problems of belief and knowledge, faith and reason, the existence and nature of God, the character and meaning of religious commitment. *Fall and spring.* Natanson.

B. Historical Courses

56 ANCIENT PHILOSOPHY (3). No prerequisite. The development of Western philosophic thought from its inception with the early Greeks to the Hellenistic period. An examination of the writings of the Pre-socratics, Plato, Aristotle, Epicureanism, Stoicism, Neoplatonism, and Greek Skepticism. *Fall.* Saunders.

58 MODERN PHILOSOPHY (3). No prerequisite. The development of philosophic thought from the Renaissance to the nineteenth century. Chief emphasis on the seventeenth and eighteenth centuries. *Spring.* Jones, Emery.

70 SCIENCE AND VALUES (3). Open to juniors and seniors with a cumulative average of *B* or better. The rise of modern scientific thought out of medieval philosophies and idea-systems and the impact of the scientific tradition upon the study of values up to the present time. *Spring.* Saunders.

99 DIRECTED READINGS (3). See the Chairman of the Department. *Fall and spring.* Staff.

100a, 100b COURSES FOR HONORS (3 each). See the programs for honors work in the College of Arts and Sciences.

Courses for Graduates and Advanced Undergraduates

C. Systematic Courses

(Prerequisite, one course under A or B, or consent of instructor.)

101 SYMBOLIC LOGIC (3). Introductory. Prerequisite, Philosophy 21 or comparable background in logic or mathematics. *Fall.* Luschei.

102 ETHICS (3). Recommended that this be preceded by Philosophy 22. A critical study of the major tendencies in the history of the philosophy of ethics and their relationship to the development of other modes of thought. *Fall.* Emery.

103 AESTHETICS (3). A critical survey of some current aesthetic theories with illustrative application in the various fields of art. (Not offered in 1961-1962.) *Spring.* Natanson.

104 PHILOSOPHY IN LITERATURE (3). An examination of some of the perennial problems of philosophy (the nature of man, evil, freedom, tragedy) as found in literary classics. *Fall.* Poteat, Natanson.

105 SOCIAL AND POLITICAL PHILOSOPHY (3). An examination of the logic of social and political thought with an analysis of such concepts as society, state, power, authority, freedom, social and political obligation, law, rights, etc. *Spring.* Dreher.

106 PHILOSOPHY OF MATHEMATICS (3). Prerequisite, Philosophy 101 or equivalent background in logic or mathematics. Discussion of philosophical problems concerning logic and the foundations of mathematics. (1961-1962 and alternate years.) *Spring.* Luschei.

107 FOUNDATIONS OF THE SOCIAL SCIENCES (Sociology 107) (3). Recommended that this be preceded by Philosophy 22 and one course in psychology or sociology. Behavioral and subjective approaches to the nature of social reality are examined as the basis for a philosophical critique of the social sciences. (1961-1962 and alternate years.) *Spring.* Dreher, Natanson.

108 PHILOSOPHY OF NATURAL SCIENCES (3). Concept formation, law explanation, the role of logic and mathematics in the sciences, and other topics. *Fall.* Luschei.

109 PHILOSOPHY OF HISTORY (3). An examination of the basic concepts, categories, and presuppositions of historical experience in the context of representative philosophies of history. (1962-1963 and alternate years.) *Fall.* Natanson.

111 INTERMEDIATE SYMBOLIC LOGIC (3). Presupposes propositional and quantifactional logic as basis for further deductive development, with special attention to alternative systems, logical grammar of formalized languages, logical and semantical paradoxes, and foundations of mathematics. *Spring.* Luschei.

D. Historical Courses

(Prerequisite, one course under B or consent of instructor.)

150 PLATO (3). An examination of some representative works of Plato, with reference to common emphases and basic problems, together with an analysis of their philosophic content. *Fall.* Saunders.

151 ARISTOTLE (3). An examination of some representative works of Aristotle, with reference to common emphases and basic problems, together with an analysis of their philosophic content. *Spring.* Saunders.

152 THE DEVELOPMENT OF MEDIEVAL PHILOSOPHY (Religion 152) (3). Representative writings of Greek Gnosticism and the development of the Latin Western Christian tradition. (1961-1962 and alternate years.) *Spring.* Saunders.

153 CONTINENTAL RATIONALISM (3). The metaphysical systems of Descartes, Spinoza, and Leibniz as seventeenth-century attempts to reconcile the medieval tradition and the early developments of modern natural science. *Fall.* Emery, Smyth.

154 BRITISH EMPIRICISM (3). An epistemological study of Locke, Berkeley, and Hume. *Spring.* Emery.

155 KANT (3). A study of Kant's critical philosophy as rooted in eighteenth-century rationalism and empiricism and as initiating German idealism. *Spring.* Emery, Smyth.

156 HEGEL (3). Hegel's Absolute Idealism: its roots in Kant's critical philosophy and its influence on subsequent thought in Europe and America. (1962-1963 and alternate years.) *Spring.* Emery.

158 RECENT AND CONTEMPORARY PHILOSOPHY (3). Analysis of a few outstanding works in recent philosophy as illustrative of major movements of thought. (1962-1963 and alternate years.) *Spring.* Natanson.

159 AMERICAN PHILOSOPHY (3). The emergence of systematic American philosophy from its matrix in earlier theological, social, and literary thought. Chief emphasis on the late nineteenth and early twentieth centuries. (1961-1962 and alternate years.) *Fall.* Emery.

160 PHILOSOPHICAL LITERATURE OF THE RENAISSANCE (3). A study of the philosophical and intellectual currents of the Renaissance, with reference to the origins and development of classical humanism and medieval scholasticism and the emergence of a Renaissance philosophy of man. (1962-1963 and alternate years.) *Spring.* Saunders.

Courses for Graduates

201 LOGIC (3). Advanced. Prerequisite, Philosophy 101 or equivalent. (1962-1963 and alternate years.) *Spring.* Luschei.

203 METAPHYSICS (3). A systematic study of metaphysical problems. *Fall.* Adams.

204 EPISTEMOLOGY (3). A systematic study of epistemological problems. *Spring.* Adams.

205 VALUE THEORY (3). A systematic study of problems in value theory. *Fall.* Adams, Dreher.

208 PHILOSOPHY OF RELIGION (3). A systematic study of problems in the philosophy of religion. (1961-1962 and alternate years.) *Fall.* Natanson.

F. SEMINARS AND SPECIAL

301 STUDIES IN ANCIENT AND MEDIEVAL PHILOSOPHY (3). An examination of typical problems and philosophic issues found in the study of classical and medieval authors. May be repeated for credit. (1962-1963 and alternate years.) *Spring.* Saunders.

304 SEMINAR IN THE HISTORY OF PHILOSOPHY (3). May be repeated for credit. *Fall and spring.* Staff.

305 SEMINAR IN SYSTEMATIC PHILOSOPHY (3). May be repeated for credit. *Fall and spring.* Staff.

311 READINGS IN PHILOSOPHY (3). May be repeated for credit. *Fall and spring.* Staff.

312 THESIS (3). *Fall and spring.* Staff.

DEPARTMENT OF PHYSICAL EDUCATION

Professors: O. K. CORNWELL, *Chairman,* R. E. JAMERSON, W. H. PEACOCK, G. E. SHEPARD

Associate Professors: E. M. ALLEN, CARL S. BLYTH, RUTH WHITE FINK, C. E. MULLIS, W. W. RABB

Assistant Professors: FRANCES B. HOGAN, MARY FRANCES KELLAM, RUTH PRICE

Instructors: EMMETT CHEEK, SALVATORE R. ESPOSITO, THOMAS HATCHER JOHNSON, BILLY WADE LOVINGOOD, WARREN MORRIS, M. D. RANSON, M. Z. RONMAN, DONALD E. SKAKLE

Lecturer: PATRICK F. EAREY

Graduate Assistants: CHRISTINE ANNE BERGNER, HOWARD EDWIN BURKE, ARTHUR BRUCE CRUMP, JOE KENNETH ELLENBURG, HERBERT LOUIS HAWKES, DAVID OLIVER KNECHT, JERRY WEBSTER KOONTZ, HOWARD ARTHUR LEMERY, JAMES CHRISTIAN PFOHL, JR., CHARLES FRANKLIN PHILLIPS, CHARLES CRAWFORD POINDEXTER, JR., CONARD JAMES STEELE, JR., JERRY MORGAN STEELE, BEN SAUNDERS TENCH

Research Assistants: JOHN JOSEPH BURT, JR., CHARLES LOWELL WRYE

The purpose of the work of the Department of Physical Education can be stated as follows: (1) to examine thoroughly each student and provide him with essential information concerning his health status; (2) to teach him the elements of personal hygiene and public health; (3) to give special attention by way of corrective exercises to all students with physical handicaps; (4) to teach outdoor sports and leisure time recreations to all students in line with their capacities and interests; (5) to provide the necessary training for teachers in the field of health and physical education and thus to help to meet the need in North Carolina for knowledge about individual and public health and to promote widespread participation in wholesome recreation.

Major requirements for students working for an A.B. in Education are: Physical Education 75, 76, 77, 78, 79, 86, 87, 88 for men and women; and 65, 66, 67, for men or 55, 56, 57 for women.

For those working toward an A.B. in Arts and Sciences requirements in the major are: Physical Education 75, 76, 77, 78, 86, 87 or 88 and two courses from 65, 66, 67 for men or 55, 56, 57 for women.

All majors in the School of Education must have for teacher certification in North Carolina the following: 8 semester hours in biological science, Education 41, 71, 72b, 99, 63, 64.

Courses for Undergraduates

10W (Hygiene) PERSONAL HYGIENE (2). Required of freshmen women. *Two hours a week, spring.* Fink.

11 (Hygiene) PERSONAL HYGIENE (2). Required of freshmen men. *Two hours a week, fall or spring.* Staff.

12W (Hygiene) HYGIENE (2). For junior and senior women who have not had Hygiene 10W. *Two hours a week, fall and spring.* Fink.

1 PHYSICAL EDUCATION (1 each). Required of freshmen men. *Four hours*
2 *a week, fall and spring.* Staff.

3 PHYSICAL EDUCATION (1 each). Required of sophomore men. *Four*
4 *hours a week, fall and spring.* Staff.

21W PHYSICAL EDUCATION (1 each). Required of freshmen women. *Four*
22W *hours a week, fall and spring.* Staff.

31W PHYSICAL EDUCATION (1 each). Required of sophomore women. *Four*
32W *hours a week, fall and spring.* Staff.

For Women Who Are Majoring in Physical Education:

55 PHYSICAL EDUCATION (4). Methods and materials in volleyball, hockey, soccer, speedball, basketball, archery, recreational games, and elementary school physical education activities. (1961-1962 and alternate years.) *Twelve laboratory hours a week, fall.* Hogan, Kellam, Fink.

56 PHYSICAL EDUCATION (4). Methods and materials in folk, square, tap, social, and modern dance, camp counselling, and softball. *Twelve laboratory hours a week, spring.* Price, Kellam, Hogan.

57 PHYSICAL EDUCATION (4). Methods and materials in tennis, golf, swimming, stunts and tumbling, life-saving, badminton, and archery. (1962-1963 and alternate years.) *Twelve laboratory hours a week, fall.* Kellam, Hogan.

For Men Who Are Majoring in Physical Education:

65 PHYSICAL EDUCATION (4). Methods, materials, techniques and skills in teaching and coaching baseball, track, football, and basketball. (1962-1963 and alternate years.) *Twelve hours a week, fall.* Rabb, Ranson, Cheek, Shepard.

66 PHYSICAL EDUCATION (4). Methods, materials, techniques and skills in teaching dancing, gymnastics, tennis, badminton, and wrestling. *Twelve hours a week, spring.* Peacock, Esposito, Skakle, Price.

67 PHYSICAL EDUCATION (4). Methods, materials, techniques and skills in teaching and coaching swimming, golf, badminton, handball, volleyball, soccer, speedball, and recreational games. (1961-1962 and alternate years.) *Twelve hours a week, fall and spring.* Eary, Jamerson, Allen, Ronman, Kellam, Esposito.

For Undergraduate Majors in Physical Education:

75 ANATOMY (3). This course is designed to teach the fundamentals of anatomy as they apply functionally to the area of health and physical education. *Fall.* Blyth.

76 PHYSIOLOGY (3). Prerequisite, Physical Education 75 or the equivalent of Zoology 11, 41. A lecture course in elementary physiology, covering the various systems of the body. *Spring.* Blyth.

77 PRINCIPLES OF PHYSICAL EDUCATION (3). A study of the relationship and contribution of physical education to general education; historical background, basic biological, physiological, psychological, and sociological backgrounds of the modern program. *Fall and spring.* Jamerson.

78 PERSONAL AND COMMUNITY HYGIENE (3). The purpose of this course is to give the student an understanding of the principles and problems of personal school, and community health as they apply to everyday living. *Spring.* Mullis.

79 TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION (2). This course is designed to acquaint students with tests and measurements in the fields of health and physical education, test construction, scoring and methods of using results. *Fall.* Peacock.

83a PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL (3). This course deals with the selection of materials and methods of physical education in the elementary school. Elective for men majoring in physical education and required of elementary education majors. *Fall and spring.* Kellam, Fink, Hogan.

83b PHYSICAL EDUCATION (3). This course deals with the methods and materials of teaching physical education for girls in the junior and senior high school. *Summer session only.* Kellam, Fink.

84 HEALTH EDUCATION FOR THE ELEMENTARY SCHOOL (3). This course includes principles, practices, and procedures in health at the elementary level. The course is required of all majors in elementary education. *Fall and spring.* Earey.

86 ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION (3). This course deals with the policies and problems of organization and administration of health and physical education programs in schools. *Fall and spring.* Fink, Shepard, Jamerson.

87 ADAPTED PHYSICAL EDUCATION (4). This course is a study of problems relating to body mechanics, and the needs of the physically handicapped student. *Fall and spring.* Rabb, Fink.

88 SAFETY, FIRST AID, ATHLETIC INJURIES (3). This course considers the problems of safety in public schools, the theory and practice of first aid, and the care and treatment of athletic injuries. *Spring.* Earey, Fink.

89 APPLIED PHYSIOLOGY OF EXERCISE (2). Prerequisites, zoology, anatomy, and physiology, or their equivalents. Study of the human body in relation to its reaction to stress. (Not offered in 1961-1962.) *Two lecture and two laboratory hours a week, spring.* Blyth.

Courses for Graduates and Advanced Undergraduates

120 PRINCIPLES OF PHYSICAL EDUCATION (3). Prerequisite, undergraduate work in education and psychology. *Fall.* Cornwell.

121ab ADMINISTRATION OF PHYSICAL EDUCATION (3). *Spring.* Shepard, Fink.

123 SCHOOL HEALTH EDUCATION (3). Prerequisite, basic courses in science. *Fall.* Peacock.

126ab ADAPTED PHYSICAL EDUCATION (3). Prerequisites, anatomy and physiology, or equivalent. *Spring.* Rabb, Fink.

127 INTRAMURAL AND EXTRAMURAL ACTIVITIES FOR SCHOOLS AND COLLEGES (3). *Fall.* Rabb.

173 COMMUNITY RECREATION (Sociology 173) (3).

175 EXTRACURRICULAR ACTIVITIES (Education 175) (3).

Courses for Graduates

220 TESTS AND MEASUREMENTS IN HEALTH AND PHYSICAL EDUCATION (3). *Spring.* Cornwell, Peacock.

221 PHYSIOLOGY OF EXERCISE (3). Prerequisites, zoology, anatomy, and physiology. *Three lecture and four laboratory periods a week, spring.* Blyth.

222 PRINCIPLES OF HEALTH EDUCATION (3). Prerequisite, adequate background in science. (Not offered in 1961-1962.) *Spring.*

224 SCHOOL AND COMMUNITY HYGIENE (3). Prerequisite, adequate background in science. (Not offered in 1961-1962.)

225 RESEARCH TECHNIQUES AND MODERN PROBLEMS IN PHYSICAL EDUCATION (3). Prerequisites, experience and advanced work in physical education and education. *Fall.* Cornwell, Peacock, Shepard.

226 HISTORY OF THE DANCE (3). (a) Dance in primitive cultures; in ancient Egypt, Greece, and Rome; in the medieval period. (b) The court ballet; modern dance; theatre dance; dance in education. *Spring.* Price.

320 RESEARCH IN PHYSICAL EDUCATION (3). Prerequisites, experience and advanced work in the field.

341abc SEMINAR COURSE (2 each). Prerequisites, adequate training and experience, and permission of the instructor. *Fall and spring.* Cornwell, Jamerson, Shepard, Peacock.

DEPARTMENT OF PHYSICS

Professors: E. D. PALMATIER,[1] *Chairman*, W. A. BOWERS, B. S. DEWITT, E. MERZBACHER, P. E. SHEARIN, J. W. STRALEY, OTTO STUHLMAN, JR.[2]
Associate Professors: W. E. HAISLEY, L. M. SLIFKIN, A. T. STEWART
Assistant Professors: C. V. BRISCOE, P. S. HUBBARD, JR.
Visiting Assistant Professors: R. MACE, M. SILVER
Visiting Research Professor: C. M. DEWITT
Research Associates: L. BEL, R. CHAPLIN, G. ERICKSON, D. OLNESS, R. OLNESS, H. VAN DAM, P. R. WILSON
Lecturer: H. W. DANIELL
Instructor: H. L. KYLE
Teaching Fellow: S. L. LEHOCZKY
Teaching Assistants: L. R. BATRA, M. A. BLEICK, J. H. CHAFFIN, G. H. COLBY, R. L. DENNINGHAM, A. C. DOTSON, L. R. FAWCETT, R. O. HAYS, R. E. HODDER, G. R. KHANDELWAL, S. M. KIM, J. T. LEWIS, N. M. RUGHEIMER, J. L. SAFKO, R. L. SANDERS, R. SEVERANCE, C. L. SNEAD, C. E. TARR, S. VISWANATHAN, W. G. WESLEY, J. J. WHITE, F. C. WILLIAMS
Research Assistants: J. ALBERGOTTI, D. J. AMMERMAN, J. J. DONAGHY, A. FUKAI, A. B. GARDNER, J. W. GILLILAND, R. L. HILT, J. H. KUSMISS, L. W. LAU, H. P. LAYER, W. C. MCGOWEN, R. O. MEYER, R. B. MINNIX, J. Y. PARK, T. A. PARNELL, E. R. POORE, E. A. REMLER, C. G. ROBERTS, J. RUGHEIMER, J. SHAND, R. S. SNYDER, M. L. SWICORD, G. D. THAXTON, H. R. TILLEY

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1. Kenan Professor.
2. Professor, Emeritus.

Requirements for Bachelor of Science in Physics

GENERAL COLLEGE

For freshman and sophomore years see "General College," Part III.[3]

JUNIOR YEAR

[4]English 33
Mathematics 141
Physics 103, 104, 105, 107
[5]Two nondivisional electives

SENIOR YEAR

Physics 106, 108, 160, 161, 141
Mathematics 171, 172 or 193, 194
[5]Two nondivisional electives

Courses for Undergraduates

20 TWENTIETH-CENTURY PHYSICS (4). No prerequisite. Topics discussed include the historical development of the atomic and nuclear view of matter; the nature of light, X-rays, and radioactivity; atomic and thermonuclear energy. Cannot be taken for credit if Physics 24-25 has already been taken. *Three lecture and two laboratory hours a week, fall and spring.* Staff.

24 25 GENERAL PHYSICS (8). Prerequisite, Mathematics 6, 7, or equivalent. *Two lecture, two recitation, and two laboratory hours a week.* Staff.

31 DESCRIPTIVE ASTRONOMY (4). A study of the celestial sphere, time, earth, moon, eclipses, sun, solar system, stars, the Milky Way galaxy, extragalactic systems, cosmogony, and earth satellites. *Three lecture and two laboratory hours a week, fall and spring.* Kyle, Daniell.

34 35 GENERAL PHYSICS (10). Prerequisites, Mathematics 15 or equivalent; corequisite, calculus. A more thorough and rigorous introduction to the fundamental principles of physics than is offered in Physics 24, 25. Especially designed for students intending to major in physics, chemistry, or mathematics. *Two lecture, three recitations, and three laboratory hours a week, fall and spring.* Staff.

45 PHOTOGRAPHY (4). *Three lecture and three laboratory hours a week, fall.* Scroggs.

54 MODERN DEVELOPMENTS IN PHYSICS (3). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, integral calculus. *Three lecture hours a week, spring.* Shearin.

91 92 RESEARCH FOR SENIORS (2 each). To be taken by Honors candidates. Staff.

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3. Changes in the curriculum, designed to allow physics majors to begin their physics in the freshman year are contemplated as this issue goes to press. Interested students should write to the Chairman of the Department for full information.

4. A nondivisional elective may be substituted if permission be granted by the Department of Physics.

5. The Department of Physics recommends that the student initiate a second foreign language: German, Russian, or French.

Courses for Graduates and Advanced Undergraduates

103 MECHANICS[6] (4 each). Fall and spring respectively. Prerequisite, Physics
104 35, or 25 with permission of the instructor, and integral calculus. *Three lecture and two computation hours a week, fall and spring.* Stewart.

105 HEAT, THERMODYNAMICS, AND KINETIC THEORY[6] (4). Prerequisite, Physics 35, or 25 with permission of the instructor, and integral calculus. *Three lecture and three laboratory hours a week, fall.* Staff.

106 OPTICS[6] (4). Prerequisite, Physics 107, 108. *Three lecture and three laboratory hours a week, spring.* Staff.

107 ELECTRICITY AND MAGNETISM[6] (4 each). Prerequisite, Physics 35, or
108 25 with permission of the instructor, and integral calculus. *Three lecture and three laboratory hours a week, fall and spring.* Staff.

124 PHYSICS FOR HIGH SCHOOL TEACHERS[7] (4 each). Prerequisites,
125 Physics 24, 25. Mathematics 15 or equivalent. *Three lecture and three laboratory hours a week, fall and spring.* Haisley.

126 MODERN PHYSICS FOR HIGH SCHOOL TEACHERS[7] (4). Prerequisites, Physics 24, 25, Mathematics 15, or equivalent. *Three lecture and two laboratory hours a week, spring.* Shearin.

141 ELECTRONICS (4). Prerequisites, Physics 104 and 107, Mathematics 141. *Two lecture and six laboratory hours a week, spring.* Hubbard.

146 PHYSICAL ELECTRONICS (3). Prerequisites, Physics 141, 160. (1961-1962 and alternate years.) *Fall.* Silver.

160 INTRODUCTION TO MODERN PHYSICS (3 each). Prerequisites, Physics
161 104 and 107. *Three lecture hours a week, fall and spring.* Merzbacher.

163 MOLECULAR SPECTROSCOPY (3). Prerequisite, Physics 161. (1961-1962 and alternate years.) *Three lecture hours a week, fall.* Straley.

170 SOLID STATE PHYSICS (3 each). Prerequisite, Physics 161. *Fall and*
171 *spring.* Slifkin.

181 ADVANCED LABORATORY (3 each). Prerequisite, Physics 104, 108, or
182 permission of the instructor. *Six laboratory hours a week, fall and spring.* Staff.

191 MATHEMATICAL METHODS OF THEORETICAL PHYSICS (3 each).
192 Prerequisites, Physics 24, 25 or equivalent, Mathematics 141; Mathematics 171 desirable but may be taken concurrently. *Fall and spring.* Hubbard.

193 CLASSICAL DYNAMICS (3). *Fall.* Bowers, Merzbacher.

194 ELECTROMAGNETIC THEORY (3 each). *Fall and spring.* Bowers,
195 Merzbacher.

Courses for Graduates

221 STATISTICAL MECHANICS (3). Prerequisite, Physics 120 and 193; Physics 260 is desirable. (1961-1962 and alternate years.) *Fall.* Bowers.

260 QUANTUM MECHANICS (3 each). Prerequisites, Physics 160, 161, and 193,
261 194. *Fall and spring.* Merzbacher.

262 ADVANCED QUANTUM MECHANICS (3). Prerequisite, Physics 261. (1962-1963 and alternate years.) *Fall.* Merzbacher.

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6. Physics 103-108 are not to be taken for graduate credit by graduate students in physics.
7. Physics 124, 125, 126 are offered as part of the North Carolina Institute for High School Teachers of Science and Mathematics for 1961-1962 and they are open to high school teachers only.

263 QUANTUM FIELD THEORY (3). Prerequisite, Physics 262. (1962-1963 and alternate years.) *Spring.* Merzbacher or DeWitt.

265 NUCLEAR MAGNETIC RESONANCE AND RELAXATION (3). Prerequisite, Physics 260. (1961-1962 and alternate years.) *Spring.* Hubbard.

267 CURRENT ADVANCES IN PHYSICS (3). Prerequisite, permission of the instructor. *Fall or spring.* Graduate staff.

268 THEORETICAL NUCLEAR PHYSICS (3). Prerequisite, Physics 261. (1962-1963 and alternate years.) *Spring.* Merzbacher.

271 THEORY OF THE SOLID STATE (3). Prerequisite, Physics 261. (1961-1962 and alternate years.) *Spring.* Bowers.

275 THEORY OF RELATIVITY (3). Prerequisites, Physics 193, 194. (1962-1963 and alternate years.) *Fall.* DeWitt.

301 RESEARCH (3 or more). *Ten or more laboratory or computation hours a week, fall or spring.* Graduate staff.

310 SEMINAR IN THEORETICAL PHYSICS (1 or more). *Either semester, as announced.* Staff.

320 SEMINAR IN LOW TEMPERATURE PHYSICS (1 or more). *Either semester, as announced.* Staff.

360 SEMINAR IN NUCLEAR PHYSICS (1 or more). *Either semester, as announced.* Staff.

364 SEMINAR IN MOLECULAR PHYSICS (1 or more). *Either semester, as announced.* Staff.

370 SEMINAR IN SOLID STATE PHYSICS (1 or more). *Either semester, as announced.* Staff.

380 SEMINAR IN PARTICLE PHYSICS (1 or more). *Either semester, as announced.* Staff.

DEPARTMENT OF PHYSIOLOGY [1]

Professors: J. H. FERGUSON, *Chairman,* A. T. MILLER, JR.
Associate Professor: J. H. PERLMUTT
Assistant Professors: L. R. YONCE, R. L. GLASSER, E. KOKAS, C. L. JOHNSTON, JR.
Visiting Research Associate: S. G. IATRIDIS
Instructor: HERMAN A. RIERSON
Teaching Assistant: IRIS B. HADDON
Lecturer: W. S. MCCLELLAN
Technician: R. S. SPARROW

Course for Undergraduates

51 PHYSIOLOGY (3½). Prerequisites, Chemistry 11-21, Zoology 41 and permission of the Chairman of the Department. Elective. *Two lecture and three laboratory hours a week, fall.* Staff.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, all courses (except 51 and 53) are taught by the quarter. The credit in parentheses after the course title is in semester hours.

Courses for Graduates and Professional Students

53 INTRODUCTORY HUMAN ANATOMY AND PHYSIOLOGY (Anatomy 53) (5). Offered jointly with the Department of Anatomy. A general course for students in the School of Nursing. Anatomy given first half of semester; Physiology given second half of semester. *Four lecture and two laboratory hours a week, spring.* Hooker, Ferguson; staff.

90 PHYSIOLOGY (6). Prerequisite, permission of the Chairman of the Department. Required of all physical therapy students. *Five lecture and eight laboratory hours a week, winter quarter.* Staff.

106 PHYSIOLOGY (6). Prerequisite, permission of the Chairman of the Department. Required of all dental students; available to graduate students as part of a minor in physiology. *Five lecture and eight laboratory hours a week, winter quarter.*[2] Staff.

141 PHYSIOLOGY I (3⅓). Prerequisite, permission of the Chairman of the Department. Offered only in conjunction with Physiology II (142) in the succeeding quarter. Required of all medical students; available to graduate students as part of a major or minor in physiology. *Three lecture and four laboratory hours a week, winter quarter.*[2] Staff.

142 PHYSIOLOGY II (8⅓). Prerequisite, Physiology 141. *Six lecture and twelve laboratory hours a week, spring quarter.* Staff.

Courses for Graduates

201 ENDOCRINOLOGY (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Perlmutt.

202 BLOOD (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Ferguson.

203 ALIMENTARY PHYSIOLOGY (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Kokas.

206 NEUROPHYSIOLOGY (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Glasser.

211 RESPIRATION AND METABOLISM (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Miller.

212 CARDIOVASCULAR PHYSIOLOGY (4). Prerequisite, permission of the instructor. *Two lecture and four laboratory hours a week, fall or spring.* Yonce.

220 SPECIAL METHODS IN PHYSIOLOGY (not to exceed 5). Prerequisite, permission of the Chairman of the Department. This is open to selected graduate students, majoring or minoring in physiology. *Fall, spring, or summer.* Staff.

301 RESEARCH IN PHYSIOLOGY (3-10 each). *Fall, spring, and summer.*
302 Staff.
303

2. Students in residence are required to register in the fall quarter.

DEPARTMENT OF POLITICAL SCIENCE

Professors: F. N. CLEAVELAND, *Chairman*, W. W. PIERSON,[1] K. C. FRAZER, C. B. ROBSON,[1] P. W. WAGER, E. J. WOODHOUSE,[2] W. S. JENKINS, F. G. GIL, D. G. MONROE, G. A. HEARD, S. S. JONES[3]
Associate Professors: D. R. MATTHEWS, R. A. RUPEN, G. B. CLEVELAND, A. M. SCOTT
Assistant Professors: E. WALLACE, R. H. DAWSON
Visiting Assistant Professor: G. T. YU
Visiting Lecturer: VIOLET WURFEL
Instructor in Extension Teaching: D. C. RHYNE
Instructor in Social Science: J. W. DIMMICK
Part-time Instructors: L. E. BENNETT, W. E. BRIGMAN, W. C. BURRIS, W. J. CROTTY, JR., E. C. DREYER, J. D. FLEER, W. J. HEFFERNAN, JR., M. G. JOHNSON, M. MERSON, H. MOORE, JR., J. W. ROBERTS
Teaching Fellow: D. M. FREEMAN
Graduate Assistants: R. E. NORTHRIP, E. L. KOONTZ, JR., A. J. VON LAZAR, W. ZOHLNHÖFER

The requirements for the A.B. with a major in political science are Political Science 41 (or the equivalent), Political Science 52 and at least one additional exclusively undergraduate course (selected from Political Science 42, 51, 55, 58, 63, 86, and 87), and a sufficient number of other political science courses to make a total of nine. The courses must be distributed among at least three of the several fields of political science: (1) local, state, and federal government in the United States; (2) public administration; (3) foreign and comparative government; (4) international law and relations; and (5) political theory and jurisprudence. There must, however, be a certain degree of concentration in one of these fields.

Also, in choosing allied courses, selections should be made which support the field of concentration. These requirements can be met and still allow an assembly of courses dealing with a specific geographic area such as Latin America.

Training for Public Administration

Professional training for such positions in the public service as general administrators (including city managers), public personnel specialists, and public financial administration specialists is offered by the Department at the graduate, rather than the undergraduate, level. However, the student may obtain through an undergraduate major in political science the necessary foundation for entrance upon an administrative career in the United States Government. He may also obtain the foundation for graduate professional training in public administration. The Division of Social Sciences of the College of Arts and Sciences has recommended that students planning to enter the public service, regardless of undergraduate major, incorporate the

1. Kenan Professor.
2. Professor, Emeritus.
3. Burton Craige Professor of Political Science.

following courses in their programs, consistently of course, with other College requirements: Political Science 41, Economics 31-32 (or 61), Psychology 26, Political Science 101, History 22 or 72 or 114, Economics 70 and 74, and English 30.

The Department will be glad to advise students interested in preparing for the public service.

Honors Program

Students with an over-all average of *B* or better may enroll in the Department's honors program. The program presents a number of advantages to qualified students. Instruction takes place in small seminars and individual conferences. Honors candidates are given maximum opportunity to engage in independent reading, research, and writing. The requirements for the regular major in political science are relaxed, thus permitting more flexible programs. Successful completion of the program results in the achievement of an A.B. with Honors in Political Science, or with Highest Honors in Political Science.

Those students planning to do honors work must take Political Science 90, the undergraduate seminar in "Contemporary Problems of Political Science," during the spring semester of their junior year. During their senior year, honors students are required to take an honors seminar (Political Science 91) and to write an honors paper (Political Science 92).

Students interested in the honors program should see D. R. Matthews, the Chairman of the Department's Committee on Honors, during the fall semester of their junior year.

Political Studies Program

The Political Studies Program offers special opportunities and facilities for the study of American politics. Supported by a grant from the Maurice and Laura Falk Foundation, this program aims to give graduate and undergraduate students a firsthand knowledge of American politics through personal participation, observation, and study. The Political Studies Program maintains a Politics Laboratory in Caldwell Hall which contains an extensive collection of political party and interest group publications; election laws, maps, and statistics; government publications; public opinion polls; newspapers and magazines; as well as the latest statistical equipment. The Laboratory is used by students in undergraduate and graduate courses and is available for independent research.

Field work projects, involving personal observation and participation in politics, are a part of the Program. A limited number of especially qualified students are also placed as interns in the executive

agencies and legislative offices in Washington, D. C. or Raleigh during the summer months. Eight Falk Fellowships open to graduate students have been established in connection with the Program.

Courses for Undergraduates

41 INTRODUCTION TO GOVERNMENT IN THE UNITED STATES (3). A basic course in American government, giving attention to the origin and nature of our federal system, and the distribution of powers between the national government and the states, but with major emphasis on national government. *Two lecture hours and one discussion meeting a week, fall and spring.* Wallace; staff.

NOTE: This course, or the equivalent, is normally a prerequisite for all other political science courses.

42 THE PROCESSES AND PROBLEMS OF GOVERNMENT IN THE UNITED STATES (3). Designed as complementary to Political Science 41. The course deals chiefly with the government in the United States affecting agriculture, labor, and business. *Two lecture and one laboratory hours a week, fall and spring.* Cleveland; staff.

51 STATE GOVERNMENT IN THE UNITED STATES (3). The organization and operations of state government, including relationship with local governments. *Fall and spring.* Wager, Monroe, Freeman.

52 THE GOVERNMENTS OF EUROPE (3). The government and politics of Great Britain, France, Germany, and Russia; a survey of constitutional development, organization and practices. *Fall and spring.* Robson, Dawson.

53 THE FAR EAST IN WORLD POLITICS (3). A survey of the international relations of East Asia. Equal emphasis will be devoted to the traditional system of foreign intercourse and contemporary political developments. *Fall.* Yu.

55 SOVIET GOVERNMENT (3). An explanation of the revolution of 1917 and a review of the subsequent power struggle and gradual development of the USSR. Also an analysis of the effects on communications, education, science, the arts, labor, minority groups, and the family. *Fall and spring.* Rupen.

58 AN INTRODUCTION TO THE NATURE AND FUNCTION OF LAW (3). A non-technical course for students of the arts and sciences with a social science approach to the examination of the nature, sources and functions of law. *Fall.* G. B. Cleveland.

63 HISTORICAL SURVEY OF POLITICAL IDEAS (3). A course designed to present a historical and conceptual background for upper-college courses in political thought. Emphasis will be placed upon the development of political ideas prior to the twentieth century. *Fall and spring.* G. B. Cleveland.

75 POLITICAL PARTIES AND INTEREST GROUPS IN THE UNITED STATES (3). The development, structure, operation and place of political parties and interest groups in the American system of government. *Fall and spring.* Matthews, Prothro.

86 INTERNATIONAL RELATIONS AND WORLD POLITICS (3). Analysis of politics among nations: imperialism, balance of power, international morality, sovereignty, diplomacy; analysis of the problem of peace, disarmament, international organizations, world government, diplomacy. *Fall and spring.* Jones, Frazer, Scott, Yu.

87 INTERNATIONAL RELATIONS OF THE LATIN AMERICAN REPUBLICS (3). Historical survey of diplomatic relations of the Latin American republics with the rest of the world with special emphasis upon relations with the United States. *Fall and spring.* Gil, Martz.

88 THE UNITED NATIONS (3). A survey of the background, organization, and procedures of the United Nations organization. Lectures, readings. *Fall and spring.* Frazer.

90 CONTEMPORARY PROBLEMS OF POLITICAL SCIENCE (3). Prerequisite, permission of the instructor. An undergraduate seminar for students planning to do honors work. *Spring.*

91 HONORS COURSE (6). Required of all students reading for honors in
92 Political Science.

Courses for Graduates and Advanced Undergraduates

101 PUBLIC ADMINISTRATION (3). A study of the basic principles of organization, location of authority, fiscal management, personnel management, and forms of administrative action in the public service. *Fall and spring.* Wager, F. N. Cleaveland.

105 PUBLIC PERSONNEL ADMINISTRATION (3). A study of the civil service —its recruitment, training, classification, promotion, restrictions, immunities, compensation and morale; and of the machinery which has been developed for handling personnel matters. *Spring.* Wager.

121 THE GOVERNMENT OF GREAT BRITAIN (3). The development and operation of British government in its local and national aspects and an examination of current developments in social and economic policy. (1961-1962 and alternate years.) *Fall.* Robson.

122 THE GOVERNMENT AND POLITICS OF FRANCE AND ITALY (3). A comparative analysis of government and politics in contemporary France and Italy. (1961-1962 and alternate years.) *Fall.* Robson.

124 COMMUNISM IN ASIA (3). This course deals primarily with Russian-Chinese relations but also analyzes the significance of the vast areas of the USSR which lie in Asia and the role of the borderlands of Sinkiang and Mongolia. *Spring.* Yu.

125 GOVERNMENT AND POLITICS IN GERMANY (3). A study of government and politics in the Federal Republic of Germany against the background of previous regimes and in comparison with current trends in other countries of western Europe. (1962-1963 and alternate years.) *Fall.* Robson.

126 THE HISPANIC EMPIRES IN AMERICA (3). A study of the political and social institutions in the Spanish and Portuguese colonial systems and their development. *Spring.* Gil.

127 GOVERNMENT OF LATIN AMERICAN STATES (3). The forms of organization, the functions, and the operations of government in Latin America with emphasis on present conditions, tendencies, and peculiar types of institutions. *Fall.* Gil.

129 GOVERNMENT AND POLITICS OF EAST ASIA (3). A study of the indigenous political ideas and institutions of East Asia and the Western influence on Asian government and politics. Primary emphasis upon the political evolution and status of Japan and China. *Spring.* Yu.

132 MUNICIPAL GOVERNMENT IN THE UNITED STATES (3). Chartered city and town governments: origin, history, forms, and relations to national, state, and county governments. *Fall.* Wager.

133 MUNICIPAL ADMINISTRATION IN THE UNITED STATES (3). Administrative organization, procedure, and problems of cities and towns. *Spring.* Esser.

134 COUNTY GOVERNMENT AND ADMINISTRATION (3). A review of the historical antecedents of American counties and townships; the present organization, powers, functions, and intergovernmental relations of these units; and significant trends. *Fall.* Wager.

138 THE STATES IN THE FEDERAL UNION (3). A study of the role of the states in our federal system, as illustrated in such fields as health, welfare, highways, resource management, and law enforcement. *Spring.* Monroe.

141 PRINCIPLES OF INTERNATIONAL LAW (3). A study of the historical development and the principles of the law of nations, together with the organization and procedure of institutions for the peaceful settlement of international disputes. Lectures, readings. *Fall.* Frazer.

143 CONTEMPORARY PROBLEMS OF SOVIET FOREIGN POLICY (3). General propositions about contemporary foreign relations of the USSR will be examined through analysis of selected "case studies" in three main categories: relations with other Communist countries, with the United States and the West, and with "uncommitted countries." *Spring.* Rupen.

144 THE ORGANIZATION AND CONDUCT OF THE FOREIGN RELATIONS OF THE UNITED STATES (3). Principal consideration is given to the organization of the government of the United States for the conduct of its foreign relations, e.g., the Department of State, the Foreign Service, etc. *Spring.* Scott.

145 CONTEMPORARY INTERNATIONAL RELATIONS OF THE UNITED STATES (3). Permission of the instructor is required. The course is suited to students with some knowledge of international relations who wish to study the contemporary foreign policy of the United States. *Fall.* Jones.

146 INTERNATIONAL COMMUNICATIONS AND COMPARATIVE JOURNALISM (Journalism 146) (3). Prerequisite, six semester hours of upper-division courses in international relations or recent European history. *Fall.* Adams.

147 CONTEMPORARY INTER-AMERICAN RELATIONS (3). The evolution of the inter-American security system, recent Pan-American conferences and the activities and problems of the various continental agencies. *Spring.* Gil.

148 THE MIDDLE EAST IN WORLD POLITICS (3). A study of the contemporary international relations of the Middle East, with emphasis on the internal forces, such as nationalism, and external pressures from the Great Powers. Economic and cultural as well as religious and political factors are examined. *Spring.* Jones.

149 DEFENSE POLICY AND NATIONAL DEFENSE (3). A study of national defense policy as affected by the constitutional and political setting, as well as its relation to foreign policy. Some attention to strategic doctrine. *Fall.* Dawson.

154 DEVELOPMENT OF THE ENGLISH CONSTITUTION (History 142) (3). Emphasis upon the major constitutional documents and the development of the national political institutions, with considerable attention to the leading constitutional cases and principles of law. *Fall.* Godfrey.

155 THE CONSTITUTION OF THE UNITED STATES (History 175) (3). A study of the fundamental principles of constitutional interpretation and practice in the United States by means of lectures, textbooks, and cases. *Fall and spring.* Jenkins.

159 THE BRITISH COMMONWEALTH OF NATIONS (History 159) (3). From the old colonial system to the constitutional development of the Commonwealth; special attention to Canada and to the important documents of Commonwealth growth, including the most recent ones. *Fall.* Baxter.

162 AMERICAN POLITICAL THOUGHT (3). An analysis of the ideas underlying government and politics in the United States. (Not offered in 1961-1962.) *Fall.* Robson.

165 POLITICAL THOUGHT OF THE EIGHTEENTH CENTURY (3). The development of liberal and democratic political thought, with emphasis on the ideas of the American and the French Revolutions. (Not offered in 1961-1962.) *Spring.* Pierson.

166 RECENT AND CONTEMPORARY POLITICAL THOUGHT (3). The theory of constitutional democracy together with an examination of the principal lines of criticism of this form of government and of the ideologies antagonistic to it. *Spring.* G. B. Cleveland.

167 POLITICAL THOUGHT IN LATIN AMERICA (3). An analysis of the development of political philosophy in Latin America with an examination of the evolution of democratic thought. *Spring.* Pierson.

170 PUBLIC OPINION AND POLITICAL PARTICIPATION (3). A study of forces in the development of public opinion and its expression in various political activities. Attention will be given to such questions as the personal needs served by political participation and the effect of formal political institutions and social structure upon such participation. *Spring.* Prothro.

180 UNITED STATES CONGRESS (3). The legislative process in Congress, with special emphasis on congressional politics and behavior. (1961-1962 and alternate years.) *Fall.* Matthews.

181 RECENT NATIONAL POLICY AND ADMINISTRATION (3). Additional prerequisite, Economics 31-32 or equivalent. Analytical and critical survey of basic national policies affecting business, labor, agriculture, special groups and industries, and the economy in general. Foreign policy is excluded. *Spring.* F. N. Cleaveland.

191 PUBLIC FINANCE (Economics 141) (3). Additional prerequisite, Economics 31-32 or equivalent. *Fall and spring.* Spruill, Ashby.

193 PROBLEMS IN STATE AND LOCAL FINANCE (Economics 143) (3). Additional prerequisite, Economics 141 or equivalent. *Spring.* Spruill, Ashby.

197 GOVERNMENT AND BUSINESS (Economics 197) (3). Additional prerequisite, Economics 31-32 or equivalent. *Spring.* Carter.

Courses for Graduates

200 THE HISTORY, SCOPE AND METHOD OF POLITICAL SCIENCE (3). A consideration of the evolution and present status of political science as a discipline and as a profession, with emphasis on contemporary research methods and techniques, including the preparation of research reports. *Spring.* Heard.

203 THE AMERICAN POLITICAL SYSTEM (3). A consideration of the processes in institutions of American government and of contemporary approaches employed in their analyses. Attention will be given to the substantive findings and to the assumptions and theoretical foundations of current writing. *Fall.* Prothro.

209 PLANNING AND GOVERNMENT (City and Regional Planning 209) (3). Survey of nature and scope of government planning, its relation to other governmental activities, and its administrative and organizational problems. *Fall.* F. N. Cleaveland.

221 LEGAL PROBLEMS IN PUBLIC ADMINISTRATION (3). Additional prerequisite, Political Science 101 or equivalent. Legal setting of public administration, emphasizing regulatory activities: administrative legislation, administrative adjudication, procedural restrictions, judicial review of administrative decisions, government and official liability. *Fall.* Monroe.

223 COMPARATIVE GOVERNMENT AND POLITICS (3). A comparative study of contemporary political systems with special attention to those of Continental Europe. *Spring.* Robson.

224 SOVIET RUSSIA IN THE MODERN WORLD (3). *Fall.* Rupen.

225 ADMINISTRATIVE ORGANIZATION AND MANAGEMENT (3). Additional prerequisite, Political Science 101 or equivalent. A study of the structural and management aspects of public administration; organization theory and practice, policy formation processes, techniques of administrative improvement, field administration. *Spring.* F. N. Cleaveland.

231 THE LEGISLATIVE PROCESS (3). (Not offered in 1961-1962.) *Spring.* Jenkins.

241 INTERNATIONAL LAW (3). A comprehensive study of the law of nations through the discussion of illustrative cases and other documents. Lectures and reports. *Fall.* Frazer.

242 INTERNATIONAL ORGANIZATIONS (3). A study of the structure, processes, and problems of current public organizations for maintaining international peace. Lectures and reports. *Spring.* Frazer.

244 PROBLEMS OF CONTEMPORARY FOREIGN POLICY AND INTERNATIONAL POLITICS (3). (Not offered in 1961-1962.) *Spring.* Jones.

251 THE ELEMENTS OF POLITICAL SCIENCE (3). A study of the principles of political science and of the important theories respecting the nature, origins, forms, and ends of the state and of government. *Spring.* Pierson.

255 PROBLEMS IN CONSTITUTIONAL LAW (3). *Fall.* Jenkins.

275 A SYSTEMATIC STUDY OF AMERICAN POLITICAL PARTIES (3). *Spring.* Matthews.

285 FINANCIAL ADMINISTRATION (3). (Not offered in 1961-1962.) *Spring.* Wager.

286 INTERNATIONAL POLITICS: THEORY AND PRACTICE (3). *Fall.* Jones.

Seminar Courses for Graduates

Prerequisite, a political science major or the equivalent.

301 INTERNATIONAL POLITICS (3). *Spring.* Jones.

302 INTERNATIONAL INSTITUTIONS (3). (Not offered in 1961-1962.) *Spring.* Frazer.

303 THEORIES OF INTERNATIONAL POLITICS (3). *Fall.* Scott.

311ab AMERICAN POLITICAL THEORY (6). (Not offered in 1961-1962.) *Fall and spring.* Pierson.

321 STATE AND LOCAL GOVERNMENT (3). *Spring.* Wager.

324 THE COMMUNIST WORLD (3). (Not offered in 1961-1962.) *Spring.* Rupen.

331 PROBLEMS IN PUBLIC ADMINISTRATION (3). Individual and group research projects on particular administrative agencies and significant problems of administrative theory and practice. (Not offered in 1961-1962.) *Spring.* F. N. Cleaveland.

341 SEMINAR COURSE (3). A research or reading course in a special field. *Fall and spring.* Any member of the graduate faculty.

342 READING COURSE IN LATIN AMERICAN GOVERNMENT (3). *Fall and spring.* Gil, Pierson.

343 READING COURSE IN POLITICAL THEORY (3). *Fall or spring.* Robson.

355 RESEARCH IN PUBLIC RECORDS (3). Open to advanced graduate students in any of the social sciences. (Not offered in 1961-1962.) *Spring.* Jenkins.

361 PROBLEMS IN RECENT AND CONTEMPORARY POLITICAL THEORY (3). (Not offered in 1961-1962.) *Spring.* Robson.

375 THESIS COURSE (3). *Fall and spring.* Members of the graduate faculty.

PORTUGUESE
(See Romance Languages)

DEPARTMENT OF PSYCHOLOGY

Professors: J. W. THIBAUT, *Chairman,* J. F. DASHIELL,[1] H. W. CRANE,[2] D. A. WOOD, H. G. MCCURDY, W. J. DANIEL, E. E. BAUGHMAN, W. G. DAHLSTROM, L. V. JONES, E. R. LONG, G. S. WELSH

Associate Professors: H. H. STRUPP, M. G. CLARKE, D. R. BOCK, H. B. ROBINSON, H. S. UPSHAW

Assistant Professors: T. E. JEFFREY,[3] R. L. DUNLAP, G. E. RADER, E. H. SHUFORD, SAMUEL FILLENBAUM, R. A. KING, JOHN SCHOPLER, M. S. WALLACH, P. D. OBRIST, C. M. COCHRANE, J. V. WILLIAMS, N. M. ROBINSON

Instructors: MARILYN ERICKSON, RONALD FOX, EDWARD JOHNSON, NANCY JOHNSON

1. Kenan Professor, Emeritus.
2. Professor, Emeritus.
3. Absent on leave, September 1, 1961, to September 1, 1962.

Lecturer: J. E. SOMERS
Research Associate: W. J. EICHMAN
Teaching Fellow: CHARLES WARD
Part-time Instructors: B. C. BALL, J. CHURCH, J. DELK, J. O. DELORGE, J. R. GRAHAM, R. C. HALL, A. Y. KIMURA, T. A. MOORE, P. J. MURDOCH, A. RAPOPORT, H. R. SCHIFFMAN, J. P. SCOTT, R. M. SINGLETON, T. A. SMITH, J. WEBB
Research Assistants: NICHOLAS BATESON, C. N. BRANNON, J. K. COOKE, SOMESH DAS GUPTA, A. M. MARZE, D. M. MESSICK, B. N. MUKHERJEE, E. W. NIEHL, S. NISHISATO, T. M. OSTROM, W. P. SMITH, D. K. SPIEGEL, R. WIESEN

The emphasis in undergraduate study of psychology is not on specialization within the field. The program for majors includes three required courses, but beyond them allows latitude for the varying directions of interest that the student may express. There are some courses which are particularly recommended to the major if he anticipates pursuing graduate training in psychology. Students intending to major in psychology are advised to include courses in biology, physics, mathematics, sociology and anthropology in their studies.

The courses in the Department available to the undergraduate student are listed below in several groups. Each major is required to take all of the courses in Group A and at least five other courses in the Department. It is advisable to take Group A courses as early as possible in the major program. Psychology 27 need not be taken prior to Psychology 28. In addition, the major student must select at least one course each from groups B, C, and D. The remaining courses needed to complete his major may be selected from any of the other courses in groups B, C, D, and E. Group A: Psychology 26, 27, and 28; Group B: Psychology 106, 121, 122, 171; Group C: Psychology 126, 133, 140, 146; Group D: Psychology 130, 132, 135, 148; Group E: Psychology 112, 131, 141, 165, 181 or other departmental offerings such as honors and original problems. It is also strongly recommended that any student intending to pursue graduate studies in psychology include Psychology 130 in his major program. Details of the student's program are planned with his adviser.

Majors in psychology who have taken at least four courses in the Department with better than a *B* average in those courses are eligible for enrollment in the Honors Program. Application should be made through his departmental adviser before registration for the first semester of the major's senior year. In this program, a student of superior ability and industry will have an opportunity to carry out independent work in an area of his choice under the guidance of some departmental staff member. Interested and qualified students should make inquiry of their departmental advisers.

For graduate students the emphasis is not on specific courses as such but rather on different areas of competence, in which progress is assessed by examinations. In consultation with his adviser, the student plans a program of study and research adapted to his needs and in-

terests. More detailed information is given in mimeographed materials available upon request from the Department of Psychology.

Practicum experience in advanced psychometric techniques is available to qualified students in connection with research projects of the Psychometric Laboratory.

Personnel and material facilities for graduate level professional training in clinical psychology are available both on and off the campus. Practicum experience in diagnostic and therapeutic procedures is available to qualified students through the N. C. Memorial Hospital. The Department participates in the clinical training programs sponsored by the Veterans Administration and the United States Public Health Service.

The student is referred also to courses in educational psychology, statistics, neurology, physiology, sociology and anthropology listed by other departments of the University.

Some courses will be given in alternate years or irregularly as demand warrants.

The advised prerequisites for each course are provided for the general guidance of the student in consultation with his adviser. In some cases, they may believe that the student needs a particular course and could succeed in it without having had the specified prerequisites. If so, the student should consult with the instructor of the course, who may waive a prerequisite.

Courses for Undergraduates

26 GENERAL PSYCHOLOGY (4). No prerequisite. *May not be taken by persons who have received credit for either Psychology 24 or 25.* A general survey of psychology as a behavioral science presented through lecture, demonstration, and laboratory work. *Three lecture and two laboratory hours a week, fall and spring.* Daniel, Dahlstrom, King, Upshaw, Long, Welsh, Shuford.

NOTE: No student may register for the laboratory without the lectures except majors who have received credit for the lectures.

27 INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY (4). Prerequisite, Psychology 26 or an equivalent course in general psychology. Areas include sensory processes, perception, emotion, conditioning and learning. Collection and quantitative treatment of behavioral data. *Three lecture and three laboratory hours a week, fall and spring.* Long, King.

28 INTRODUCTION TO PERSONALITY (4). Prerequisite, Psychology 26 or an equivalent course in general psychology. A study of the normal human individual as an organic whole. Hereditary and environmental sources of individual differences in personality dynamics. *Three lectures and one hour of discussion a week, fall and spring.* Fillenbaum, Baughman, Welsh, McCurdy.

NOTE: This course will not meet the General College laboratory science requirement.

99ab HONORS IN PSYCHOLOGY (3). Prerequisite, enrollment in the honors program. Reading and research problems. (See description above.) To be taken twice by each honors student and may be counted towards the major at the student's option. *99a, fall; 99b, spring.* Staff.

Courses for Graduates and Advanced Undergraduates

NOTE: Psychology 26 or the equivalent is prerequisite to all courses numbered above 100.

104 ADVANCED GENERAL PSYCHOLOGY (3). Prerequisite, Psychology 26. A survey and refresher course offering a critical and detailed study of some of the major modern experimental findings and methods in contemporary experimental psychology. (1961-1962 and alternate years.) *Fall.* Daniel.

106 PHYSIOLOGICAL PSYCHOLOGY (3). Prerequisites, Psychology 26 and 27 or special permission of the instructor. End organ, neurological, and muscle action patterns and their role in behavior. Related findings on endocrine, hormonal, and metabolic processes. *Two lecture and two laboratory hours a week, fall.* King.

112 HISTORICAL TRENDS IN PSYCHOLOGY (3). Prerequisites, Psychology 26, and 27 or 28 (40), or permission of the instructor. Limited to senior majors or to graduate students in psychology; others by permission of the instructor. Over-view of the origins of psychological concepts, movements, and fields of study. *Fall.* McCurdy, Fillenbaum.

121 SENSATION AND PERCEPTION (3). Prerequisites, Psychology 26, 27, or permission of the instructor. Vision, audition, skin senses, chemical senses, attention, reaction time, psychophysical methods, and emotion. *Two lecture and three laboratory hours a week, fall.* Long, Fillenbaum.

122 LEARNING AND THINKING (3). Prerequisites, Psychology 26, 27, or permission of the instructor. Motivation, conditioning, learning, problem-solving, thinking, and language. Relations of findings to educational procedures. *Two lecture and three laboratory hours a week, spring.* Long.

126 CHILD DEVELOPMENT (3). Prerequisites, Psychology 26 and 28 (40). Development of the normal child, with particular attention to social relations. Biological and cultural factors are considered. *Fall and spring.* King, McCurdy, Robinson.

130 ELEMENTARY PSYCHOLOGICAL STATISTICS (3). Prerequisites, Psychology 26, 27, or permission of the instructor. Principles and method of descriptive statistics and introduction to statistical inference, with applications to psychological problems. *Two lecture and two laboratory hours a week, fall and spring.* Wood.

131 DESIGN OF PSYCHOLOGICAL EXPERIMENTS (3). Prerequisites, Psychology 26, 27, 130. Design and analysis of psychological research, emphasizing sampling and statistical inference. *Two lecture and two laboratory hours a week, fall.* Jones, Johnson, Wood.

132 TEST CONSTRUCTION (3). Prerequisite, Psychology 130 or equivalent. Constructing and planning written tests, essay and objective, and performance tests for aptitudes and achievement. Other types of measuring devices are given some attention. (1962-1963 and alternate years.) *Two lecture and two laboratory hours a week, spring.* Wood.

133 INTRODUCTION TO SOCIAL PSYCHOLOGY (Sociology 133) (3). Prerequisites, Psychology 26, 28 (40); (Sociology majors may substitute Soc. 51); Psych. 28 highly desirable. Permission of the instructor in special cases. Examination of social systems from various points of view, stressing interpersonal relations and representative methods of observation, experiment, and analysis. *Fall and spring.* McCurdy, Thibaut, Fillenbaum, Upshaw, Schopler.

135 PERSONNEL PSYCHOLOGY (3). Prerequisites, Psychology 26 and a course in statistics. Methods of analyzing jobs and of selecting, training, motivating, and evaluating employees. *Fall.* Wood.

140 PERSONALITY (3). Prerequisites, Psychology 26, 28 (40). Development and modern application of the concept of personality as a more or less self-determining system of beliefs, values, and behavior tendencies. *Fall and spring.* McCurdy, Baughman, Welsh, Upshaw.

141 INTRODUCTION TO CLINICAL PSYCHOLOGY (3). Prerequisites, Psychology 26, 28 (40), and two 100-level courses. A survey of the types of problems, methods of evaluation, and treatment techniques encountered in clinical psychology. *Spring.* Baughman, Welsh, Robinson.

146 BEHAVIOR DISORDERS (3). Prerequisites, Psychology 26, 28 (40). Major forms of behavioral pathology of children and adults, with an emphasis on understanding, treatment, and prevention of these personality disorders. *Fall and spring.* Welsh, Clarke, Dahlstrom.

148 TESTS AND MEASUREMENTS (3). Prerequisites, Psychology 26, 27; 130 also desirable. Survey of principal types of psychological measuring instruments. *Spring.* Welsh, Upshaw, Dahlstrom, Hughes.

151 ORIGINAL PROBLEMS (3). Prerequisites, Psychology 26, 27, 28 (40), and permission of the instructor. *Six laboratory hours a week, fall and spring.* Staff.

165 COMMUNICATION AND OPINION (Journalism 165) (Sociology 165) (3). Prerequisites, any two of the following: Psychology 26, Political Science 41, Sociology 51. Theories of communication; persuasion and opinion formulation; propaganda and pressure groups; the mass media and public opinion; voting behavior. *Fall and spring.* Adams, Danielson.

171 MODERN BEHAVIOR THEORY (3). Prerequisites, Psychology 26, 27, 122, or permission of the instructor. A critical survey of recent theoretical developments in learning and behavior theory. *Fall and spring.* Daniel.

181 LABORATORY ANALYSIS IN PERSONNEL PSYCHOLOGY (Business Administration 153) (3). Prerequisite, Psychology 135, or Business Administration 150, or equivalent, and a course in statistics. A laboratory course in personnel techniques as applied to job analysis, constructing application blanks, rating scales, etc. *One lecture and four laboratory hours a week, spring.* Wood.

188 SMALL GROUPS (3). Prerequisite, Psychology (Sociology) 133 or permission of the instructor. Intensive survey of research and theory on behavior in small groups combined with appropriate experience in studying various structured groups. *Fall.* Schopler.

Courses for Graduates

201 EXPERIMENTAL METHODS AND PROCEDURES (3 each). Prerequi-
202 sites for 201, Psychology 121, 130; for 202, Psychology 104, or 122 and 130. Principal problems of classic experimentation; psychophysics, sensory qualities, perception, reaction time, feeling, work and fatigue, conditioning, learning, etc. *One lecture and five laboratory hours a week, fall and spring.* Long, King.

203 EXPERIMENTAL METHODS OF PERSONALITY STUDY (3). Prerequisite, Psychology 104, 140, or 227. Experimental methods applied to complex behavioral phenomena. Analysis of research studies on aggression, anxiety, and defense mechanisms. *Two lecture and two laboratory hours a week, spring.* Dahlstrom.

205 NEUROPHYSIOLOGICAL PSYCHOLOGY (3). Prerequisite, Psychology 106 or permission of the instructor. The neural bases of behavior, with emphasis on subsystems in the cord and brain. *Two lecture and two laboratory hours a week, spring.* Dahlstrom.

212 CONTEMPORARY PSYCHOLOGICAL TRENDS (3). Readings in the original writings of structuralism, behaviorism, Gestalt, psychoanalysis, and other recent movements. *Spring.* Fillenbaum, McCurdy.

225 ANIMAL BEHAVIOR (3). Prerequisites, Psychology 104 or 122. Survey of and research in learning, motivation and sensory capacities. *Two lecture and two laboratory hours a week, spring.* Daniel, King.

226 EXPERIMENTAL CHILD PSYCHOLOGY (3). Prerequisites, Psychology 126 and permission of the instructor. Survey of research contributions to the field of development, by areas and by age periods. Research methodology emphasized. *Two lecture and two laboratory hours a week, spring.* Robinson, Dunlap.

227 THEORIES OF PERSONALITY (Sociology 227) (3). Prerequisite, Psychology 140 or equivalent. Summary of major contemporary theories of personality, with some consideration of relevant empirical research. *Fall.* Baughman, McCurdy, Welsh.

228 ADVANCED SOCIAL PSYCHOLOGY (Sociology 228) (3). Prerequisites, Psychology (Sociology) 133 or equivalent, 188, or permission of the instructor. Summary of main theoretical and substantive trends in contemporary social psychology with emphasis on the role of small group theory and research. *Spring.* Thibaut.

230 ADVANCED PSYCHOLOGICAL STATISTICS (3). Prerequisite, Psychology 131 or equivalent. Includes such topics as statistical estimation and hypothesis testing, as well as psychological scaling and use of quantitative models in design and analysis of experiments. *Two lecture and two laboratory hours a week, spring.* Jones.

231 PSYCHOPHYSICS (3). Prerequisite, Psychology 130 or equivalent. Principles of psychophysics, including classical methods and reproduction, limits, paired comparisons, equal-appearing intervals, etc. (1961-1962 and alternate years.) *Two lecture and two laboratory hours a week, fall.* Jones, Bock.

232 TEST THEORY AND ANALYSIS (3). Prerequisite, Psychology 130; 132 and 230 desirable. Principles of mental measurement; theoretical bases of analyzing tests; selection and weighting of composite tests. *Two lecture and two laboratory hours a week, spring.* Wood, Bock.

233 METHODS OF SOCIAL PSYCHOLOGY (Sociology 233) (3). Prerequisite, Psychology 133. Methods of investigation in social psychology with application to the social sciences. Survey methodology with particular emphasis on opinion polling. *Spring.* Thibaut, Schopler, Upshaw.

234 MATHEMATICAL PSYCHOLOGY (3). Prerequisite, permission of the instructor. Illustrations of psychology as a quantitative rational science. Topics from a wide range: vision, nervous system, learning, war psychology, attention, fatigue, etc. *Offered as demand warrants.* Jones, Shuford, Bock.

235 MEASUREMENT OF ATTITUDES (Sociology 235) (3). Prerequisite, Psychology 130 or equivalent. Major approaches to opinion and attitude measurement, with special reference to the advantages and limitations of each. *Spring.* Upshaw.

236 PSYCHOLOGICAL ASPECTS OF FACTOR ANALYSIS (Statistics 664) (3). Prerequisites, Psychology 130 and 131 or 230, or Statistics 512 and 513, or equivalent, plus a course in analytic geometry. Includes two-factor theory, centroid analysis, communalities, simple structure, rotational methods, second-order factors, new developments. *Two lecture and two laboratory hours a week, spring.* Jones.

237 SPECIAL PROBLEMS IN FACTOR ANALYSIS (Statistics 663) (3). Prerequisite, Psychology 236 or Statistics 661 and 662. Special problems in applying multivariate analysis to research problems. Emphasis for psychology majors on factor analysis. *Six laboratory hours a week, offered as demand warrants.*

251 INDIVIDUAL PSYCHOMETRIC ASSESSMENT (3). Prerequisites, Psychology 130, 148, and permission of the instructor. Methods of individual testing with emphasis on the Stanford-Binet and Wechsler scales. Practice in administration, scoring, and interpretation of tests. *Six to eight laboratory hours a week, fall.* Robinson.

252 ASSESSMENT PRACTICUM I, II (3 each). Prerequisites, Psychology 251,
253 255, and permission of the instructor. Primarily for second-year graduate students in clinical psychology with emphasis on a variety of psychodiagnostic techniques. *Six to eight laboratory hours a week, fall and spring.* Clarke, Rader.

254 OBJECTIVE PERSONALITY TESTS (3). Prerequisites, Psychology 130, 148, and 140 or 227. Theory and use of empirically developed tests of personality. Administration, and interpretation of representative tests, particularly the MMPI. *Spring.* Welsh, Dahlstrom, Cochrane.

255 THEORY OF PROJECTIVE TECHNIQUES (3). Prerequisite, Psychology 251 and/or permission of the instructor. Projective methods of examination, their assumptions, validity and reliability. *Two lecture and two laboratory hours a week, spring.* Dahlstrom, Baughman, Schopler, Wallach.

258 METHODS OF PSYCHOTHERAPY (3). Prerequisites, at least second-year graduate student status and permission of the clinical staff. Intensive survey of theories and techniques of the most frequently employed methods of psychotherapy. *Spring.* Strupp, Welsh, Wallach.

259 CLINICAL PRACTICES IN PSYCHOTHERAPY (3 each). Prerequisites,
260 Psychology 258 and permission of the clinical staff. Supervised training in psychotherapeutic procedures with clinical subjects, further study of literature, and participation in clinical staff conferences. *Six laboratory hours a week, fall and spring.* Baughman, Strupp.

271 BEHAVIOR THEORIES (3). Prerequisites, Psychology 104 and 122 and permission of the instructor. Contemporary theories of behavior and learning. Student designs problems within each. *Offered as demand warrants.* Long, King.

300 SPECIAL READINGS IN PSYCHOLOGY (3). Prerequisite, permission of the instructor. Intended for advanced graduate students. *Either semester.* Staff.

325 SEMINAR IN THEORETICAL-EXPERIMENTAL PSYCHOLOGY (1, 2, or 3). The topics will vary with the interests of students and staff members. *Either semester, as announced.* Staff.

326 SEMINAR IN CLINICAL PSYCHOLOGY (1, 2, or 3). Systematic surveys of research in special techniques or theories of clinical psychology. *Either semester, as announced.* Staff.

327 SEMINAR IN ABNORMAL PSYCHOLOGY (1, 2, or 3). Systematic reviews of theoretical and experimental studies in psychopathology, animal neuroses, and related topics. *Either semester, as announced.* Staff.

328 SEMINAR IN SOCIAL PSYCHOLOGY (Sociology 328) (3). Prerequisite, Psychology (Sociology) 133 or equivalent. *Time to be arranged.* Staff.

330 SEMINAR IN QUANTITATIVE PSYCHOLOGY (1, 2, or 3). A seminar either on a particular topic to be announced or on a variety of developments in quantitative psychology. *Either semester, as announced.* Staff.

340 SEMINAR IN MEDIA ANALYSIS (Journalism 340) (Sociology 340) (3). Prerequisites, graduate standing in journalism, psychology, sociology, or anthropology, and permission of the instructor. Students will participate in the design and execution of a media research project. *Spring.* Danielson.

341 ADVANCED RESEARCH (3). Supervised research for the master's thesis or doctoral dissertation. *Six laboratory hours a week, fall or spring.* Staff.

SCHOOL OF PUBLIC HEALTH

Professors: EDWARD GRAFTON MCGAVRAN, *Dean,* HERMAN GLENN BAITY,[1] MILLARD BAIMBRIDGE BETHEL, MARGARET BLEE,[2] RALPH HENRY BOATMAN, JR., ALBERT HUGHES BRYAN, CHARLES METZ CAMERON, JR., JOHN CHARLES CASSEL, EMIL THEODORE CHANLETT, SIDNEY SHAW CHIPMAN, ROBERT ERVIN COKER, JR., MARGARET BAGGETT DOLAN, JOHN THOMAS FULTON, BERNARD GEORGE GREENBERG, RUTH WARWICK HAY,[3] JOHN EDGAR LARSH, JR., FRANK E. LAW, LUCY SHIELDS MORGAN,[4] DANIEL ALEXANDER OKUN, EUNICE NICKERSON TYLER,[5] JOHN JOSEPH WRIGHT

Visiting Professor: JOSEPH OSCAR IRWIN

Research Professor: WILLIAM WALTER CORT[6]

Associate Professors: REBECCA AGNES BROACH, LOUISE CANTRELL, JOHN PATON FILLEY, DAVID A. FRASER, HILTON THOMAS GOULSON, ELLEN ELIZABETH GUILLOT,

1. Professor, Emeritus; Visiting Professor of Sanitary Engineering, January 1, 1962, to March 31, 1962.
2. Absent on leave, fall quarter, 1961, and spring quarter, 1962.
3. Absent on leave, fall quarter, 1961.
4. Absent on leave, September 1, 1961, to May 31, 1962.
5. Absent on leave, 1961-1962.
6. Professor, Emeritus.

JAMES RICHARD HENDRICKS,[7] ELIZABETH STEPHENS HOLLEY, GILBERT LEROY KELSO,[8] ROSEMARY MAY KENT, JOHN KOSA, ROY RAYMOND KUEBLER, JR., JAMES CHRISTIAN LAMB III, ELIZABETH LOVELL MCMAHAN, NORMAN MILLER, RALPH CLINTON PATRICK, JR., ANN DEHUFF PETERS, HERMAN ALFRED TYROLER, HIAWATHA BROWN WALKER, CHARLES MANUEL WEISS

Visiting Associate Professors: C. R. COUNCIL, JAMES FORD DONNELLY, CHARLES HARPER, MARTIN PATTERSON HINES, JACOB KOOMEN, RODDY M. LIGON, JR., JOHN WILLIAM ROY NORTON, WILLIAM LENOIR WILSON

Research Associate Professors: ANN CATON HANSEN, HARRY STEPHEN UPSHAW[9]

Assistant Professors: ARTHUR LEMON ARNOLD, NORA FRANCES CLINE, WILLIAM EDWARD CREIGHTON, ROBERT CLAUDE ELSTON, JAMES ENNIS GRIZZLE, LYDIA SAY HOLLEY, CARLYLE DAVID JENKINS, VIRGINIA MARGARET NELSON, LYMAN ALONZO RIPPERTON, FRIEDRICH THEODOR SULZER, HENRY BRADLEY WELLS

Acting Assistant Professor: JAMES DONALD JOHNSON, JR.

Visiting Assistant Professors: WILLIAM BURNS JONES, DAVID A. ROBERTSON

Instructors: BERTON H. KAPLAN, HOWARD A. PETERS, DONALD BRETT THOMAS, A. FRED WEST

Visiting Instructor: JOHN THOMAS HUGHES

Research Associates: EVELYN LENORE ANDERSON, DONALD BERG, WILLIAM THEODORE HERZOG,[10] ELLEN B. KAPLAN, FRANCES S. MCCONNELL, NAOMI M. MORRIS

Graduate Assistants: THEODORE LOTHIAN BELL, JOHN A. BOLEN, PERCY PERRY BROWN, JACK H. GAKSTATTER, JAMES R. GRUBE, KHATAB HASSANEIN, WALTER JACUMIN, BRUCE Z. LANG, JAMES DAVID LUTZ, LEE A. MOORE, GARLAND PENDERGRAPH, ROBERT PITTMAN, ALAN J. RUBIN, RONALD L. SHEARIN, HENRY J. SWIGGETT

Research Fellows: A. RAY ABERNATHY, JAMES R. ABERNATHY, CHARLES L. CHASE, JAY H. GLASSER, ELMER C. HALL, PAUL B. KANOFSKY, FREDERICK MCJUNKIN, KAHLIL H. MANCY, EDNA NIEVES, RAY T. OGLESBY, RUTH PORTMAN, LESTER W. PRESTON, JR., WARREN C. WESTGARTH

Post-Doctoral Fellow: CARL ERIK SARNDAL

Post-Doctoral Trainees: RICHARD L. BEAUDOIN, HARRY H. MCLEAN, HYMAN K. SCHONFELD

Research Assistants: JOHN W. LAWSON, CAROL C. STOESEN, GERALD C. STRICKLAND

Students other than those in schools of the Division of Health Affairs must obtain permission from their deans before registering for any course in public health.

For further information regarding these requirements and the new quarter system curriculum see the catalogue of the School of Public Health.

Courses for Undergraduates

16 (P.H.) METHODS AND MATERIALS IN TEACHING PUBLIC HEALTH EDUCATION (Education 93) (5 q.h.) or (3 s.h). *To be arranged. Field fee, $10.00.* McMahan.

17 (P.H.) STUDENT TEACHING IN COMMUNITY HEALTH EDUCATION (Education 94) (14 q.h.) or (9 s.h.). *To be arranged.* Kent, McMahan.

18 (P.H.) ENVIRONMENTAL SAFETY AND FIRST AID (3 q.h.) or (2 s.h.). *To be arranged.* Kent.

7. Absent on leave, 1961-1962.
8. Absent on leave, September 1, 1961, to August 31, 1962.
9. Resigned August 31, 1961.
10. Resigned February 28, 1962.

19 (P.H.) SCHOOL AND COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (6 q.h.) or (4 s.h.) *To be arranged. Field fee, $5.00.* Boatman; staff.

90a (P.H.) BASIC HEALTH SCIENCES (4). *Two lecture and four laboratory hours a week, fall.* Wells, Hendricks.

90b (P.H.) BASIC HEALTH SCIENCES (2). *Two hours a week, winter.* H. Peters.

110ab (P.H.) PRINCIPLES OF PUBLIC HEALTH (12). *To be arranged. Field fee, $10.00.* Kent; staff.

Courses for Graduates and Advanced Undergraduates

100a (P.H.) INTRODUCTION TO PUBLIC HEALTH (4). *As scheduled, fall.* McGavran, Cameron.

100b (P.H.) INTRODUCTION TO PUBLIC HEALTH II (3). Prerequisite, P.H. 100a. *Two lecture and two laboratory hours a week, winter.* Cameron, Coker; staff.

102 (P.H.) LEGAL BASIS OF PUBLIC HEALTH PRACTICE (1). *Two seminar hours a week, fall.* Ligon.

106 (P.H.) VENEREAL DISEASE CONTROL PROBLEMS (2). *Two lecture hours a week, spring.* Wright; staff.

107 (P.H.) DENTAL PUBLIC HEALTH (Dental Public Health 192) (1). *One lecture hour a week, spring.* Law, Creighton.

115 (P.H.) INTRODUCTION TO PUBLIC HEALTH EDUCATION (3). *Three lecture and demonstration hours a week, winter.* Boatman; staff.

120 (P.H.) PUBLIC HEALTH STATISTICS I (3). *Two lecture and two laboratory hours a week, fall.* Greenberg.

125 (P.H.) PUBLIC HEALTH STATISTICS II (3). Prerequisite, P.H. 120. *Two lecture and two laboratory hours a week, winter.* Kuebler.

126 (P.H.) PRINCIPLES OF STATISTICAL INFERENCE (5). *Four lecture and two laboratory hours a week, fall and winter.* Grizzle, Kuebler.

127 (P.H.) STATISTICAL ANALYSIS I (P.H. 127, P.H. 128, and P.H. 129 are Statistics 101, 102) (4). Prerequisite, college algebra; corequisite, integral calculus. *Three lecture and two laboratory hours a week, fall.* Kuebler.

128 (P.H.) STATISTICAL ANALYSIS II (P.H. 127, P.H. 128, and P.H. 129 are Statistics 101, 102) (3½). Prerequisite, P.H. 127. Continuation of P.H. 127. *Two lecture and three laboratory hours a week, winter.* Kuebler.

129 (P.H.) STATISTICAL ANALYSIS III (P.H. 127, P.H. 128, and P.H. 129 are Statistics 101, 102) (3). Prerequisite, P.H. 128. Continuation of P.H. 128. *Two lecture and two laboratory hours a week, spring.* Kuebler.

131 (P.H.) PARASITISM AND HUMAN DISEASE (3). Prerequisite, Zoology 11 or equivalent. *Two lecture and two laboratory hours a week, fall.* Larsh, Goulson; assistants.

134 (P.H.) HUMAN PARASITOLOGY (3½). Prerequisite, P.H. 131, or Zoology 11, or equivalent. *Two lecture and three laboratory hours a week, winter.* Larsh, Goulson; assistants.

135 (P.H.) HUMAN BEHAVIOR (3). *Two lecture and two seminar hours a week, fall and winter.* Filley; staff.

136 (P.H.) BEHAVIOR PROBLEMS IN PUBLIC HEALTH NURSING (2). Prerequisite, P.H. 135. *One lecture and two seminar hours a week, winter.* Filley; staff.

140 (P.H.) PUBLIC HEALTH PROBLEMS (2-5). *Three to six hours a week, fall, winter, and spring.* Staff of the School of Public Health.

141 (P.H.) PUBLIC HEALTH NUTRITION (3). *Spring.* Broach.

142 (P.H.) PRINCIPLES OF HUMAN NUTRITION AND METABOLISM (4). Prerequisites, a major in nutrition or equivalent courses. *Fall.* Bryan.

154 (P.H.) SOCIAL PROBLEMS OF CHILDREN (2). *Two lecture hours a week, spring.* Guillot.

158 (P.H.) GROWTH AND DEVELOPMENT (3). *Three lecture hours a week, winter.* Cantrell.

160 (P.H.) PRINCIPLES OF EPIDEMIOLOGY (3). *Two lecture and two laboratory hours a week, fall.* Cassell, Fulton, Patrick, Jenkins.

170 (P.H.) PRINCIPLES OF ENVIRONMENTAL HEALTH (3). *Two lecture and two laboratory hours a week, winter.* Okun, Chanlett, H. Peters, Ripperton; staff.

172 (P.H.) PUBLIC HEALTH PROBLEMS IN INDUSTRY (3). Prerequisite, P.H. 100a. *Three lecture hours a week, winter.* Chanlett, Fraser.

173 (P.H.) ELEMENTS OF AIR HYGIENE (3). Prerequisite, admission to graduate standing or permission of the instructor. *Two lecture and two laboratory hours a week, spring.* Ripperton, Chanlett.

174X (P.H.) PRINCIPLES AND PRACTICE OF SANITATION (4 ext. hrs.). *Ten lecture and ten laboratory hours a week for four weeks, summer.* H. Peters.

180 (P.H.) PRINCIPLES OF SANITARY SCIENCE (3). Prerequisites, college mathematics, chemistry, and physics; corequisite, P.H. 181a. *Two lecture and two laboratory hours a week, fall.* Lamb, H. Peters.

181ab (P.H.) SANITARY CHEMISTRY AND BIOLOGY (3 each). Prerequisite, general chemistry. *Three lecture hours a week, fall and winter.* Sulzer, Weiss.

182 (P.H.) ANALYTICAL METHODS IN SANITARY CHEMISTRY AND BIOLOGY (4). Prerequisite, general chemistry. *Two lecture and four laboratory hours a week, winter.* Weiss.

183 (P.H.) ANALYTICAL METHODS IN SANITATION (4). Prerequisites, general chemistry and biology. *Two lecture and four laboratory hours a week, winter.* Sulzer.

190a (P.H.) PRINCIPLES AND PRACTICES OF PUBLIC HEALTH NURSING, PART I (3). *Three lecture hours a week, fall.* E. Holley.

190b (P.H.) PRINCIPLES OF PUBLIC HEALTH NURSING, PART II (2). *Two lecture hours a week, winter.* E. Holley.

191 (P.H.) PUBLIC HEALTH NURSING ORGANIZATIONS AND ADMINISTRATION (4). Prerequisites, P.H. 190a and P.H. 190b or equivalents. *Four lecture hours a week, winter.* Hay.

192 (P.H.) COMMUNICATIONS SKILLS IN PUBLIC HEALTH NURSING (3). Prerequisites, P.H. 190a and P.H. 135 or equivalents. *One lecture and two seminar hours a week, winter.* E. Holley.

193 (P.H.) APPLIED PUBLIC HEALTH NURSING FIELD PRACTICE (10). *Five days a week, spring. Field fee, $300.00.* Dolan, Hay, E. Holley; public health nursing supervisors of teaching centers.

194 (P.H.) REHABILITATION NURSING IN LONG-TERM ILLNESS (6). *To be arranged. Field fee, $25.00.* Staff of the Department of Public Health Nursing.

195 (P.H.) THE PUBLIC HEALTH NURSE IN A MATERNAL HEALTH PROGRAM (4). *Four lecture hours a week, winter.* Blee.

196 (P.H.) SPECIAL FIELDS IN PUBLIC HEALTH NURSING (6). *Twenty lecture hours a week for four weeks, summer.* Dolan, Blee, E. Holley; visiting lecturers.

197 (P.H.) PHILOSOPHY AND PRINCIPLES OF SUPERVISION IN PUBLIC HEALTH NURSING (3). Prerequisite, public health nursing experience or permission of the instructor. *Three lecture hours a week, fall.* Dolan, E. Holley.

Courses for Graduates

200 (P.H.) PRINCIPLES OF PUBLIC HEALTH ADMINISTRATION (4). Prerequisite, P.H. 100. *Four lecture hours a week, winter.* Wright, Cameron, Coker.

203 (P.H.) INTRODUCTION TO OCCUPATIONAL HEALTH (3). *Three lecture hours a week, spring.* Wilson, Coker; staff.

204 (P.H.) PRINCIPLES OF CHRONIC DISEASE CONTROL (3). *Two lecture and two seminar hours a week, spring.* Cameron, Coker.

205 (P.H.) INTRODUCTION TO MEDICAL CARE (3). *Four lecture hours a week, fall.* Cameron.

206 (P.H.) VENEREAL DISEASE CONTROL METHODS (3). Prerequisite, medical degree. *Three lecture hours a week, spring.* Wright; staff.

207 (P.H.) DENTAL PUBLIC HEALTH PRACTICE (2). *Four seminar hours a week, spring.* Law.

208 (P.H.) VETERINARY MEDICINE AND PUBLIC HEALTH (3). *Three lecture hours a week, spring.* Hines.

209 (P.H.) THE CONTROL OF COMMUNICABLE DISEASE (3). *Three lecture hours a week, spring.* Cameron, Coker; visiting lecturers.

214 (P.H.) SPECIAL FIELDS IN PUBLIC HEALTH EDUCATION (9). Prerequisite, P.H. 215. *Twelve lecture and laboratory hours a week, summer. Field fee, $20.00.* Kent; staff; visiting lecturers.

215 (P.H.) COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (5). *Three lecture and four laboratory hours a week, winter. Field fee, $10.00.* McMahan; visiting lecturers.

216 (P.H.) FIELD WORK IN PUBLIC HEALTH EDUCATION (15). *Full-time, spring. Field fee, $300.00.* Boatman, Kent, McMahan, Walker; health education counselors of training centers.

217abc (P.H.) PROBLEMS IN HEALTH EDUCATION (7-13½). Prerequisites to be arranged with faculty adviser in the individual case. 217a, *six lecture and demonstration hours a week, fall;* 217b, *five lecture and demonstration hours a week winter;* 217c, *three lecture and demonstration hours a week, summer. Field fee, $20.00.* Tyler, Walker; visiting lecturers.

218 (P.H.) RELATED FIELDS IN HEALTH EDUCATION (9). Prerequisite, permission of the instructor. *Nine lecture hours a week, summer.* Staff of the Department of Public Health Education; visiting lecturers.

219 (P.H.) SCHOOL HEALTH EDUCATION (3). *Four lecture and demonstration hours a week, fall. Field fee, $10.00.* Kent, McMahan; visiting lecturers.

220 (P.H.) LIFE TABLES AND DEMOGRAPHY (4½). Prerequisites, P.H. 120 and P.H. 125 or equivalent. *Three lecture and three laboratory hours a week, winter.* Irwin.

221 (P.H.) THE ROLE OF HEALTH STATISTICS IN ADMINISTRATION (3). Prerequisite, P.H. 120. *Three lecture hours a week, spring.* Greenberg.

222 (P.H.) FIELD WORK IN PUBLIC HEALTH STATISTICS (12). Prerequisites, P.H. 120, P.H. 125, and P.H. 221. *Summer. Field fee, $300.00.* Greenberg; statistical consultants in state health departments.

223 (P.H.) STATISTICAL METHODS IN EPIDEMIOLOGY (4½). Prerequisites, P.H. 120, P.H. 125, P.H. 160, or equivalents. *Three lecture and three laboratory hours a week, spring.* Greenberg, Cassel.

232 (P.H.) PARASITOLOGICAL METHODS (6). Prerequisite, P.H. 134. *Three lecture and six laboratory hours a week, spring.* Goulson.

233 (P.H.) MALARIOLOGY (5). Prerequisite, P.H. 131, or Zoology 11, or equivalent. *Three lecture and four laboratory hours a week, spring.* Larsh, Chanlett; assistants.

234 (P.H.) MEDICAL ENTOMOLOGY (3½). Prerequisites, Zoology 11 and P.H. 134 or equivalent. *Two lecture and three laboratory hours a week, spring.* Larsh; assistants.

235 (P.H.) MENTAL HEALTH PROGRAMS (1). Prerequisite, P.H. 135. *One lecture hour a week, spring.* Filley; staff.

236 (P.H.) MENTAL HEALTH ASPECTS OF NURSING SUPERVISION (2). Prerequisite, P.H. 135. *One lecture and two seminar hours a week, spring.* Filley; staff.

237 (P.H.) MENTAL HEALTH EDUCATION (1). Prerequisite, P.H. 135. *One lecture hour a week, summer.* Filley; staff.

240ab (P.H.) FAMILY DIETARY PRACTICES AND THEIR DETERMINANTS (2 each). 240a, *winter;* 240b, *spring.* Broach, Patrick.

241 (P.H.) PRINCIPLES OF PUBLIC HEALTH NUTRITION (2). *Summer.* Bryan.

242 (P.H.) NUTRITION AND HEALTH IN HUMAN POPULATIONS (4). Prerequisite or corequisite, P.H. 142. *Fall.* Bryan.

243ab (P.H.) NUTRITION PROGRAMS AND SERVICES IN PUBLIC HEALTH (3 each). Prerequisite or corequisite, P.H. 242 or equivalent. 243a, *winter;* 243b, *spring.* Broach.

244 (P.H.) FIELD WORK IN PUBLIC HEALTH NUTRITION (10). Prerequisite, P.H. 243ab. *Spring. Field fee, $300.00.* Broach; nutritionists in local and state health departments.

245 (P.H.) SEMINAR IN PUBLIC HEALTH NUTRITION (5). Prerequisites, P.H. 242, P.H. 243ab. *Summer.* Broach.

246 (P.H.) THE DIETARY SURVEY (5). *Summer.* Bryan.

249 (P.H.) WORKSHOP IN PUBLIC HEALTH NUTRITION (2-5). *Summer.* Bryan, Broach.

250abc (P.H.) MATERNAL AND CHILD HEALTH (4 each). *Four lecture hours a week, fall, winter, and spring.* Chipman; staff.

251ab (P.H.) SEMINAR IN MATERNAL AND CHILD HEALTH (1 each). Prerequisite, P.H. 250a or P.H. 258. *Two hours a week, winter and spring.* Chipman.

252ab (P.H.) CLINICAL TRAINING IN MATERNAL AND CHILD HEALTH (3 each). *Three hours a week, winter and spring.* Chipman.

253 (P.H.) PROBLEMS IN MATERNAL AND CHILD HEALTH (3). *Three hours a week, spring.* Chipman; staff.

255 (P.H.) FIELD TRAINING OR EXPERIENCE IN MATERNAL AND CHILD HEALTH (5). *Summer. Field fee, $300.00.* Chipman; staff.

258 (P.H.) MATERNAL AND CHILD HEALTH (3). *Three seminar hours a week, fall or winter.* Chipman; staff, assisted by members of the Department of Public Health Nutrition.

259 (P.H.) MATERNAL AND CHILD HEALTH (3). *Two seminar hours a week, winter.* Chipman; staff, assisted by members of Department of Public Health Nutrition.

260 (P.H.) EPIDEMIOLOGICAL FOUNDATIONS FOR DISEASE CONTROL PROBLEMS (3). *Three lecture hours a week, winter.* Cassel, Tyroler.

261 (P.H.) DENTAL EPIDEMIOLOGY (3). *Three lecture hours a week, winter.* Fulton.

262 (P.H.) EPIDEMIOLOGY IN PUBLIC HEALTH FAMILY PRACTICE (3). *Three lecture hours a week, winter.* Cassel, Patrick.

263 (P.H.) COMPARATIVE EPIDEMIOLOGY (3). *Three lecture hours a week, winter.* Patrick.

264 (P.H.) CULTURE AND HEALTH (4½). Prerequisites, P.H. 160 and at least one of P.H. 260, P.H. 261, P.H. 262, or P.H. 263. *Three seminar and three laboratory hours a week, spring.* Cassel, Patrick, Jenkins, Tyroler.

265 (P.H.) HISTORY OF EPIDEMIOLOGY (4½). *Three seminar and three laboratory hours a week, spring.* Fulton.

270 (P.H.) RADIOACTIVITY IN WATER, FOOD, AND AIR (3). Prerequisites, college mathematics, chemistry, physics, P.H. 180. *Two lecture and two laboratory hours a week, winter and spring.* Chanlett.

272 (P.H.) WATER SUPPLY AND SEWERAGE (5). Prerequisite, engineering degree. *Four lecture and two laboratory hours a week, fall.* Okun.

273ab (P.H.) WATER AND WASTE TREATMENT DESIGN (3 each). Prerequisites, P.H. 181a, P.H. 181b, P.H. 182, P.H. 272; corequisite, P.H. 247a. *Two lecture and two laboratory (design) hours a week, winter and spring.* Okun.

274ab (P.H.) WATER AND WASTE TREATMENT PROCESSES (5 each). Prerequisites, P.H. 181a, P.H. 181b, P.H. 182. *Three lecture and four laboratory hours a week, winter and spring.* Lamb.

275 (P.H.) INDUSTRIAL WATER QUALITY MANAGEMENT (3). Prerequisite, P.H. 274a; corequisite, P.H. 274b. *Three lecture hours a week, spring.* Lamb.

276 (P.H.) INSTRUMENTAL METHODS OF ANALYSIS (4). Prerequisites, inorganic and analytical chemistry or permission of the instructor. *Two lecture and four laboratory hours a week, winter.* Johnson.

277 (P.H.) LIMNOLOGY AND STREAM POLLUTION (4). Prerequisites, P.H. 181a, P.H. 181b, P.H. 182. *Two lecture and four laboratory hours a week, spring.* Weiss.

278 (P.H.) SANITARY MICROBIOLOGY (4). Prerequisites, college chemistry and bacteriology or permission of the instructor. *Two lecture and four laboratory hours a week, spring.* Sulzer.

280 (P.H.) FUNDAMENTALS OF AIR HYGIENE (3). Corequisites, P.H. 180, P.H. 181a. *Two lecture and two laboratory hours a week, fall.* Ripperton, Chanlett, Fraser.

281 (P.H.) INDUSTRIAL HYGIENE AND SANITATION (4). Prerequisites, P.H. 172, P.H. 181, P.H. 181a, P.H. 181b, P.H. 270 or P.H. 173. *Two lecture and four laboratory hours a week, spring.* Fraser, Chanlett.

282 (P.H.) EFFECTS AND MEASURES OF AIR POLLUTANTS (4). Prerequisite, P.H. 280; corequisite, P.H. 181b. *Three lecture and two laboratory hours a week, winter.* Ripperton, Fraser.

283 (P.H.) CONTROL OF AIR POLLUTANTS (5). Prerequisites, P.H. 280, P.H. 282. *Three lecture and four laboratory hours a week, spring.* Ripperton, Chanlett.

285 (P.H.) ENVIRONMENTAL SANITATION METHODS I (5). Prerequisites, P.H. 131, P.H. 180, P.H. 181a; corequisites, P.H. 182 or P.H. 183. *Four lecture and two laboratory hours a week, winter. Field fee, $20.00.* H. Peters, Chanlett, Weiss.

286 (P.H.) ENVIRONMENTAL SANITATION METHODS II (5). Prerequisites, P.H. 131, P.H. 180, P.H. 181a, P.H. 182 or P.H. 183, and P.H. 285. *Four lecture and two laboratory hours a week, spring.* H. Peters.

287 (P.H.) PLANNING ENVIRONMENTAL SANITATION PROGRAMS (3). Prerequisites, P.H. 100a, P.H. 100b, P.H. 180 or P.H. 170. *Two lecture and two laboratory hours a week, spring.* H. Peters.

297 (P.H.) ADVANCED SUPERVISION IN PUBLIC HEALTH NURSING (4). Prerequisite, P.H. 197 or equivalent. *Four lecture hours a week, winter.* Dolan.

298 (P.H.) SEMINAR IN PUBLIC HEALTH NURSING SUPERVISION (4). *Four seminar hours a week, spring.* Dolan, Nelson.

299 (P.H.) RESEARCH METHODS (3). *Three lecture hours a week, winter.* Nelson.

Research Courses

300 (P.H.) APPLIED PRINCIPLES OF PUBLIC HEALTH ADMINISTRATION (4). Prerequisites, P.H. 100, P.H. 200. *Eight seminar and laboratory hours a week, spring.* Wright, Cameron, Coker.

301abc (P.H.) SEMINAR IN PUBLIC HEALTH ADMINISTRATION (1 each). *Two seminar hours a week, fall, winter, and spring.* McGavran, Cameron, Coker.

304 (P.H.) RESEARCH IN CHRONIC DISEASE CONTROL METHODS (2-6). *Four or more laboratory hours a week, to be arranged.* Coker, Cameron, Wright.

305 (P.H.) RESEARCH IN MEDICAL CARE (2-6). *Four or more laboratory hours a week, to be arranged.* Cameron.

306 (P.H.) RESEARCH IN VENEREAL DISEASE (1½ or more). *Three or more laboratory hours a week, to be arranged.* Wright; staff.

307 (P.H.) SEMINAR IN DENTAL PUBLIC HEALTH PRACTICE (2). *Four seminar hours a week, spring.* Law, Creighton.

308 (P.H.) SEMINAR IN ACCIDENT CONTROL METHODS AND PROGRAMS (2). *Four seminar hours a week, spring.* Cameron; guest speakers.

309 (P.H.) RESEARCH IN PUBLIC HEALTH ADMINISTRATION (1½ or more). *Three or more laboratory hours a week, to be arranged.* Wright; staff.

314 (P.H.) SEMINAR ON THE ORGANIZATION AND ADMINISTRATION OF SCHOOL AND COMMUNITY HEALTH EDUCATION (4½). *Four and one-half seminar hours a week, to be arranged.* Boatman, Kent, McMahan, Walker.

315 (P.H.) RESEARCH IN HEALTH EDUCATION (2 or more). *Four or more laboratory hours a week, to be arranged.* Boatman, Kent, McMahan, Walker.

316 (P.H.) ADVANCED FIELD TRAINING IN HEALTH EDUCATION (12). *To be arranged.* Boatman, Kent, McMahan, Walker.

317ab (P.H.) SEMINAR IN HEALTH EDUCATION (4½ each). *Four and one-half seminar hours a week, to be arranged.* Boatman, Kent, McMahan, Walker.

318 (P.H.) DEVELOPMENTS CURRENT TO PUBLIC HEALTH EDUCATION (3). Prerequisite, Master of Public Health degree or equivalent. *Ten lecture and ten to twelve laboratory hours a week for two weeks, summer.* Boatman, Morgan, Tyler, Kent, McMahan, Walker; visiting lecturers.

319 (P.H.) ADVANCED SPECIAL FIELDS IN PUBLIC HEALTH EDUCATION (3). Prerequisites, Master of Public Health degree and/or permission of the instructor. *Ten lecture and ten to twelve laboratory hours a week for two weeks, summer.* Boatman, Morgan, Tyler, Kent, McMahan, Walker; visiting lecturers.

320 (P.H.) STATISTICAL CONSULTING IN THE HEALTH SCIENCES (3 or more). Prerequisites, a minimum of one year of graduate work in statistics, and at least 18 quarter hours in public health or preclinical medical science. *Six or more laboratory hours a week, fall, winter, spring, and summer.* Staff of the Department of Biostatistics.

321 (P.H.) RESEARCH IN STATISTICS (2½ or more). *Five or more laboratory hours a week, fall, winter, spring, and summer.* Staff of the Department of Biostatistics.

332 (P.H.) RESEARCH IN PARASITOLOGY (2½ or more). *Three or more hours a week, to be arranged.* Larsh, Goulson.

339 (P.H.) PROBLEMS IN MENTAL HEALTH (1-2). *To be arranged.* Filley; staff.

341 (P.H.) RESEARCH IN PUBLIC HEALTH NUTRITION (2 or more). *Fall, winter, spring, and summer.* Bryan, Broach.

360 (P.H.) RESEARCH IN EPIDEMIOLOGY (4½ or more). *Four and one-half or more laboratory hours, winter and spring.* Cassel, Tyroler, Fulton, Patrick, Jenkins.

371 (P.H.) RESEARCH IN SANITARY SCIENCE (3 or more). *Six or more laboratory hours a week, fall, winter, spring, and summer.* Staff of the Department of Sanitary Engineering.

372 (P.H.) RESEARCH IN SANITARY ENGINEERING (3 or more). Prerequisites or corequisites, P.H. 162, P.H. 163, P.H. 264, P.H. 272, P.H. 273. *Six or more laboratory hours a week, fall, winter, spring, and summer.* Staff of the Department of Sanitary Engineering.

373 (P.H.) RESEARCH IN INDUSTRIAL HYGIENE (3 or more). *Six or more laboratory hours a week, fall, winter, spring, and summer.* Staff of the Department of Sanitary Engineering.

374 (P.H.) RESEARCH IN AIR HYGIENE (2 or more). Prerequisites, graduate standing and permission of the instructor. *Four laboratory hours or more a week, fall, winter, spring, and summer.* Staff of the Department of Sanitary Engineering.

380 (P.H.) SEMINAR IN ENVIRONMENT HYGIENE (1). *Two seminar hours a week, fall, winter, spring, and summer.* Staff of the Department of Sanitary Engineering.

399 (P.H.) RESEARCH IN PUBLIC HEALTH NURSING (6). Prerequisites, P.H. 125 or P.H. 126, P.H. 299, and permission of the instructor. *Hours to be arranged, spring.* Members of graduate faculty.

DEPARTMENT OF RADIO, TELEVISION, AND MOTION PICTURES

Professor: Earl Wynn, *Chairman*
Associate Professors: John Ehle, Wesley H. Wallace, John S. Clayton, John B. Adams, Wayne A. Danielson
Assistant Professors: Ross Scroggs, Robert L. Hilliard

The curriculum falls into four divisions: criticism; institutional,[1] which includes historical, economic, and regulatory aspects of the media; production, which includes speech, performance, and directing; and writing. The student will take the basic course in each of these areas. These courses are radio, television, and motion pictures (R-TV-MP) 45, 58, 60, and 78. In addition, the student may elect three courses from the remainder of the curriculum. Of these seven courses, R-TV-MP 45 is counted as a sophomore elective, prerequisite to the six courses of the major.

Consistent with University requirements, the student will take six to eight courses in other departments of the Division of the Humanities, and six or seven courses in other divisions of the College of Arts and Sciences. A departmental adviser will assist in guiding each student to a broad, liberal education through conferences, the use of special aptitude tests, and the periodic study of each student's class and extracurricular activities. These extracurricular activities are voluntary but are faculty directed and are an important part of the teaching program. They include work in the radio and television stations of the University, and special projects in all three media.

Students are advised to take R-TV-MP 45 during the sophomore year, if possible.

The Department offers two programs for graduate study. One leads to the degree of Master of Arts in Communication, and the other more limited program leads to a Certificate in Communication. Entrance requirements for either program include an average grade of *B* in the student's undergraduate major, which must have been in the areas of the humanities or the social sciences.

For the Master of Arts in Communication degree, seven courses will be taken in the major field, of which courses numbered 290, 300, and 350 are required; three courses will be taken in the minor field. The residence requirement is one academic year.

For the Certificate in Communication, the student must complete seven courses in the major.

Details of the graduate program will be found in the catalogue of the Graduate School.

1. A student may major in the School of Business Administration and take his nondivisional electives in this Department. Those interested should see the special bulletin of the School of Business Administration.

Courses for Undergraduates

45 CRITICAL ANALYSIS OF RADIO, TELEVISION, AND MOTION PICTURES (Dramatic Art 45) (3). Sophomore elective required of majors, open to juniors and seniors. Works of artistic merit are studied in terms of the intentions and attainment of the artists involved in their preparation. Through texts, scripts, radio recordings and television and motion picture films, the student becomes acquainted with the contribution made by the writer, director, performers and other artists working in a production, and of their relationships. *Fall and spring.* Clayton, Wynn; staff.

58 DEVELOPMENT OF BROADCASTING, PART I (Dramatic Art 58) (3). Open to juniors and seniors only. Definitions of broadcasting, discussion of the importance of broadcasting and motion pictures, and the role of the "public interest" in broadcasting. *Fall and spring.* Wallace.

60 PRODUCTION FUNDAMENTALS (Dramatic Art 60) (3). Open to radio, television, and motion pictures and dramatic art majors only. *Two lecture and two laboratory hours a week, fall and spring.* Hilliard.

78 WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART I (Dramatic Art 78) (3). A basic course dealing chiefly with drama. *Fall and spring.* Ehle.

81 NONFICTION WRITING (Dramatic Art 81) (3). Open to radio, television, and motion pictures and dramatic art majors only. Theories and practices of writing non-dramatic materials for radio, television, and motion pictures. *Fall.* Hilliard.

99 HONORS (3). Reading and the preparation of an essay for honors of the preparation of a creative work or works for Honors in Writing under the direction of a departmental adviser. This is a two-semester course. Credit will be awarded at the end of the second semester of work. *Fall and spring.* Ehle; staff.

Courses for Graduates and Advanced Undergraduates

159 DEVELOPMENT OF BROADCASTING, PART II (Dramatic Art 159) (3). Prerequisite, R-TV-MP 58. A study of audiences, station organization and operation, and economic, cultural, and political factors which influence broadcasting. Emphasis is placed upon factors affecting management and program policies and decisions. *Fall.* Wallace.

171 IDEA, FORM, AND MEDIUM (3). An investigation of the relationship between the idea to be expressed, the form of the expression, and the medium chosen. Examples of this relationship will be studied in works chosen from four media: the stage, the motion picture, radio and television, and will include examples from Greek, Tudor, and Modern Drama as well as selected examples of naturalism, expressionism, and related forms in radio, television, and motion pictures. *Fall.* Clayton.

173 RESEARCH PROJECTS IN THE MASS MEDIA (Dramatic Art 173) (3). Open to radio, television, and motion pictures and dramatic art majors only. A proseminar for the study of research methods in the mass media and the completion of special research projects. *Spring.* Hilliard.

176 RADIO PRODUCTION ARTS[2] (Dramatic Art 176) (3). Prerequisite, R-TV-MP 60. Open to radio, television, and motion pictures and dramatic art majors only. Analysis and application of the principles and methods of radio production and direction. Standard and experimental program forms will be studied. *Two lecture and two laboratory hours a week, fall.* Hilliard.

177 TELEVISION PRODUCTION ARTS[2] (Dramatic Art 177) (3). Prerequisite, R-TV-MP 60. Open to radio, television, and motion pictures and dramatic art majors only. An intermediate course in television production covering basic techniques of producing educational and commercial live television: lecture, demonstration, news, interview, panel, and drama. A study of techniques and critical standards. *Two lecture and two laboratory hours a week, fall and spring.* Clayton.

179 WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART II (Dramatic Art 179) (3). Prerequisite, R-TV-MP 78. Three major projects will be completed by each student, either dramatic or non-fiction, and for any of the three media. *Spring.* Ehle.

182 MOTION PICTURE AND TELEVISION PERFORMANCE (Dramatic Art 182) (3). Prerequisite, permission of the instructor. Open to radio, television, and motion pictures and dramatic art majors only. Theory and practice in speaking and acting. *Two lecture and two laboratory hours a week, fall.* Wynn.

187 MOTION PICTURE PRODUCTION ARTS[2] (Dramatic Art 187) (3). Prerequisite, R-TV-MP 60. Open to radio, television, and motion pictures and dramatic art majors only. Physics 45, Photography, is recommended as preparation for this course. The theory and techniques of film form are studied in lecture, demonstration, and student exercises. *Two lecture and two laboratory hours a week, spring.* Scroggs.

Courses for Graduates

251 MEDIA RESEARCH METHODS (Journalism 251) (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures. Bibliography; elements of experimental design and survey research methodology; audience studies and audience measurement problems; content analysis; the Program Analyser and related procedures; representative studies. *Fall and spring.* Adams, Danielson.

262 TELEVISION AND MOTION PICTURE PHOTOGRAPHY (3). Prerequisite, 187. A study in the creative use of the camera as an instrument of pictorial presentation. (Not offered in 1962-1963.) *One lecture and four laboratory hours a week.* Scroggs.

267 STAGING FOR TELEVISION AND MOTION PICTURES I (3). Prerequisite, Dramatic Art 66 or permission of the instructor. Theory and practice in the designing of scenery and lighting. *One lecture and four laboratory hours a week, spring.* Wynn.

268 STAGING FOR TELEVISION AND MOTION PICTURES II (3). Prerequisite, 267. A continuation of 267. (Not offered in 1962-1963.) *One lecture and four laboratory hours a week.* Wynn.

2. A graduate student minoring in radio, television, and motion pictures may be allowed to take R-TV-MP 176, 177, or 187 (or any two of these), by satisfying the laboratory fundamentals requirement through examination, or demonstration, or by taking without credit only those portions of R-TV-MP 60 which apply.

290 SOCIAL ASPECTS OF MASS COMMUNICATION (3). Required. A survey of current research in communication media as related to propaganda and public opinion and cultural and social patterns, with particular emphasis upon those backgrounds essential to an understanding of the impact of communication media on society. *Spring.* Wallace.

300 SEMINAR IN COMMUNICATION (3). Required. Individual research in a specialized field under the direction of a member of the graduate teaching staff. *Spring.* Hilliard, Wallace, Clayton.

305abc PRODUCTION PROJECTS (3). Prerequisite, 176, 177 or 187. Individual students carry through to completion projects they initiate, which may include documentary films, a series of educational radio or television programs, a series of dramatic or documentary programs, or a full-stage television drama. *Fall and spring.* Wynn, Clayton, Hilliard, Scroggs.

306abc PROBLEMS IN INSTITUTIONAL ASPECTS OF BROADCASTING (3). Prerequisite, 159. Students carry on individual investigation of problems in broadcast management and programming and complete any individual projects assigned. *Fall and spring.* Wallace.

310abc EXPERIMENTAL AND CREATIVE WRITING (3). Prerequisite, 179 or permission of the instructor. Individual projects in writing accomplished with appropriate research, conferences and criticism. *Fall and spring.* Ehle.

350 THESIS (3). Required. Graduate staff.

RECREATION ADMINISTRATION
(See Sociology and Anthropology)

DEPARTMENT OF RELIGION

Professors: BERNARD BOYD,[1] ARNOLD S. NASH
Assistant Professor: SAMUEL S. HILL, *Chairman*
Assistants in Religion: FRANCES MCKAY MARTIN, ROBERT HODGES BILBRO, PAUL LEACH BURROUGHS, WILLIS PADGETT WHICHARD
Graduate Assistant: MARY ANN BROWN

A department of religion in a state university is inevitably concerned with the study of religion from the standpoint of both the humanities and the social sciences. In other words, a department in such a setting enables one to study religion, if he wishes, along with literature, art, science, politics, philosophy, and the like, as a major factor in the life of man. Accordingly, students initially pursue their interest in this field with a consideration of Biblical literature (Religion 28) or of the role of religion in American culture (Religion 32) or of comparative religion (Religion 45).

More advanced courses in the Department are available to those who wish to proceed further with their interest in a particular aspect of the study of religion. Students desiring to major in religion will

1. James A. Gray Professor of Biblical Literature.

utilize these more advanced courses to undertake a program which will place emphasis either upon Biblical studies or upon the role of religion in human culture. Majors in religion, therefore, will build on the three required introductory courses (or their equivalents in other institutions), then follow a course of study according to either of these alternatives:

Major in Biblical Studies: six upper-college courses which must include Religion 80, Religion 81, Religion 130, and at least one of the two courses Religion 121 and Religion 171;

Major in Religion and Culture: six upper-college courses, which must include Religion 91, Religion 130, and at least one of the two courses Religion 103 and Religion 170.

Any student who plans to major in religion should consult the departmental adviser as early as possible to make curricular arrangements. If a student anticipates additional work at a theological seminary, he will wish to construct the rest of his program to accord with the recommendations of the American Association of Theological Schools. If one wishes to proceed to graduate study in religion, he should give special consideration to the inclusion in his undergraduate program of one or more languages in which the sacred literatures of the world have been written. The attention of such a student should early be drawn to courses offered by the University in Hebrew, New Testament Greek, Arabic, and Sanskrit. One enrolled in the School of Education may desire to qualify for accreditation as a high school teacher of religion, along with some other subject.

Special mention should be made of other undergraduate courses which have a particular relevance to the study of religion. Among the more important of these are Philosophy of Religion (Philosophy 52); Literary Aspects of the Bible (English 63); Archaeology of the Bible (Classics 85); and The Ancient Near East (History 51).

Programs of study leading to the M.A. and Ph.D. degrees, although not presently offered, will be proposed in the future. Already religion may be chosen as a minor field in graduate study. To date, students have elected to minor in religion while engaged in an M.A. or Ph.D. program in such diverse fields as English, education, philosophy, sociology, dramatic art, library science, etc. One of the principal purposes of this minor is to furnish future teachers of sociology, education, philosophy, and the like with a context of study that will enable them to see the place of their field of interest from the perspective of a Judaic-Christian view of man, history, and society.

Courses for Undergraduates

28 THE ORIGIN AND SIGNIFICANCE OF THE BIBLE (3). *Fall and spring.* Boyd.

30 THE RELIGIOUS BACKGROUND OF WESTERN CIVILIZATION (3). A historical study of the impact of the faith of the Old Testament, Graeco-Roman religion, Teutonic religion, and Christianity upon the life and thought of the Western world. *Spring.* Nash.

32 THE VARIETIES OF RELIGION IN AMERICAN LIFE AND CULTURE (3). *Fall and spring.* Hill.

45 THE RELIGIONS OF THE WORLD (3). *Fall and spring.* Nash.

75 RELIGIOUS THOUGHT IN THE TWENTIETH CENTURY (3). This course will be concerned with recent trends in religious thought as exhibited in thinkers like Reinhold Niebuhr, Jacques Maritain, Martin Buber, Paul Tillich, and William Temple. *Fall.* Hill.

80 INTRODUCTION TO OLD TESTAMENT LITERATURE (3). *Fall.* Boyd.

81 INTRODUCTION TO NEW TESTAMENT LITERATURE (3). *Spring.* Boyd.

91 CHRISTIAN ETHICS AND MODERN PROBLEMS (3). *Fall and spring.* Hill.

93 CHRISTIANITY AND INTERPRETATIONS OF HISTORY (3). A study of Biblical, liberal Protestant, and other Christian interpretations of history as compared to such secular views as the Marxist, the progressivist, and the nihilist. *Spring.* Hill.

95 THE RELATIONS BETWEEN SCIENCE AND RELIGION (3). Prerequisite, Religion 28, or 30, or permission of the instructor. This course will be concerned with the mutual influence of natural science and religion upon each other in Western civilization from 1500 to the present day. *Fall.* Hill, Nash.

97 COURSES FOR HONORS (3 each semester). Required of all students
98 reading for honors in Religion. *Fall and spring.*

Courses for Graduates and Advanced Undergraduates

103 CHRISTIANITY AND EDUCATION (3). Prerequisite, Religion 30, or 45, or special permission. This course will consist of a historical and comparative study of the relations between Christianity and education since the Reformation. *Fall.* Nash.

121 THE BIBLICAL PERSPECTIVE (3). Prerequisite, Religion 28 or permission of the instructor. A systematic consideration of the central themes of the Bible, and the tension between the Biblical *Weltanschauung* and other world views. *Spring.* Boyd.

130 RELIGION AND CULTURE IN WESTERN CIVILIZATION (3). Prerequisites, Religion 28 (or 80) together with Religion 45. Not to be taken by students who have received credit for Religion 30. A study of the relations between the religions of the Western world (beginning with the dawn of civilization in the ancient Near East) and the different cultural expressions which these religions have taken. *Fall.* Nash.

170 SOCIOLOGY OF RELIGION (Sociology 170) (3). An analysis of tensions between the scientific, ethical and theological study of society; the role of religion in social change; the social origins of the denominations; the sociological significance of the Reformation; "sect" and "church" in sociological theory. *Spring.* Nash.

171 THE WORK OF THE DEUTERONOMISTS (3). Prerequisites, Religion 28 or Religion 80 and permission of the instructor. A study of the work of the Deuteronomists, their philosophy of history, their continuity with the prophetic movement, and their contributions to the development of Biblical thought. *Fall.* Boyd.

DEPARTMENT OF ROMANCE LANGUAGES

Professors: S. A. STOUDEMIRE, *Chairman*, S. E. LEAVITT,[1] U. T. HOLMES, JR.,[2] N. B. ADAMS, H. R. HUSE, J. C. LYONS, *Secretary*, W. L. WILEY,[2] R. W. LINKER, A. G. ENGSTROM,[3] J. HARDRÉ,[4] J. E. KELLER, F. M. DUFFEY, M. A. PEYTON
Associate Professors: W. A. MCKNIGHT, L. A. SHARPE
Assistant Professors: R. L. FRAUTSCHI, G. B. DANIEL
Instructors: V. CANTARINO, A. G. LO RÉ, F. W. VOGLER, J. R. BEELER, H. J. FREY, D. D. JOHNSON, D. H. LITTLEJOHN, W. F. REAGAN, R. L. BRAND, K. E. BUNTING, J. L. D. CLARK, J. H. DAVIS, E. T. DRAPER-SAVAGE, S. D. ELIZONDO, P. A. LEE, JR., J. W. MCCRADY, F. L. MEADOWS, E. T. NEWMAN, H. R. STONE, L. F. SUTTON
Part-time Instructors: D. ALEXANDER, B. H. BREEDEN, S. M. CARRINGTON, JR., R. L. COLEMAN, W. W. DEGRUMMOND, F. H. FORNOFF, C. O. HADLEY, J. A. NELSON, B. H. PLUNKETT, S. J. WILLIAMS, JR.
Teaching Fellows: R. T. CARGO, R. J. MAYBERRY, A. C. PEACOCK
Library Assistant: NANCY ERIN SMITH

FRENCH

Students interested in having a major in French will please consult Mr. J. C. Lyons, Departmental Adviser.

Those students who plan to teach in public high schools should see "School of Education" in Part III.

The course requirements for the A.B. degree with a major in French are as follows: French 50, 51, 52, 53, 71, 72, 120, 145. This program may be varied according to the student's special needs and preparation.

Courses for Undergraduates

1-2 ELEMENTARY FRENCH (6). *Three hours a week, through two semesters.* Daniel; staff.

Attention is called to French 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

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1. Kenan Professor, Emeritus.
2. Kenan Professor.
3. Alumni Distinguished Professor of French.
4. Absent on leave, spring semester, 1962.

3-4 INTERMEDIATE FRENCH[5] (6). *Three hours a week, through two semesters.* Daniel; staff.

14 BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.
15 *Three hours a week, fall and spring.* Linker, Frautschi.

21 ADVANCED FRENCH (3). Sophomore elective. Masterpieces of French literature. *Any semester.* Lyons, Wiley, Linker, Engstrom, Hardré, Frautschi.

22 ADVANCED FRENCH (3). Sophomore elective. Contemporary French literature. *Any semester.* Lyons, Wiley.

50 ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (3). Prerequisite, intermediate French. *Fall.* Frautschi.

51 FRENCH CONVERSATION AND COMPOSITION (3). *Any semester.* Lyons, Hardré, Daniel.

52 FRENCH CIVILIZATION I (CONVERSATION) (3). Prerequisite, French 51. *Fall and spring.* Lyons, Hardré.

53 FRENCH CIVILIZATION II (CONVERSATION) (3). Prerequisite, French 52. French Revolution to the present. *Fall.* Hardré.

71 SURVEY OF FRENCH LITERATURE I (3). Prerequisite, French 21. Open to juniors and seniors. *Fall.* Lyons, Wiley, Engstrom, Frautschi.

72 SURVEY OF FRENCH LITERATURE II (3). This course is a continuation of French 71. Open to juniors and seniors. *Spring.* Lyons, Wiley, Engstrom.

73 SURVEY OF FRENCH LITERATURE III (3). This course is a continuation of French 72. A survey of contemporary literature from 1890 to 1950. Open to juniors and seniors. *Fall.* Hardré.

83 MATERIALS AND METHODS IN HIGH SCHOOL FRENCH (Education 83f). (3). *Spring.*

84 DIRECTED TEACHING OF HIGH SCHOOL FRENCH (Education 84f) (3). *Any semester.*

97 HONORS COURSE (3). Required of all students reading for honors in French.

Courses for Graduates and Advanced Undergraduates

120 FRENCH DRAMA AND POETRY OF THE TWENTIETH CENTURY (3). Prerequisites, French 71, 72. (1961-1962 and alternate years.) *Spring.* Hardré.

126 HISTORY OF THE FRENCH LANGUAGE (3). Prerequisite, French 71, 72. *Spring.* Linker.

131 THE FRENCH DRAMA PRIOR TO 1700 (3). Prerequisites, French 71, 72. *Fall.* Wiley.

132 THE FRENCH DRAMA SINCE 1700 (3). Prerequisites, French 71, 72. *Spring.* Wiley.

5. Either of these courses may be taken separately for elective credit if the language requirements have already been satisfied.

145 FRENCH PHONETICS (3). Prerequisites, French 71, 72. *Fall.* Wiley.

171 FRENCH LITERATURE OF THE SEVENTEENTH CENTURY I (3). Prerequisites, French 71, 72. *Fall.* Lyons.

172 FRENCH LITERATURE OF THE SEVENTEENTH CENTURY II (3). Prerequisites, French 71, 72. *Spring.* Lyons.

181 FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (3). Prerequisites, French 71, 72. *Fall.* Frautschi.

191 FRENCH ROMANTICISM (3). Prerequisites, French 71, 72. *Fall.* Engstrom.

192 FRENCH LITERATURE SINCE 1850 (3). Prerequisites, French 71, 72. *Spring.* Engstrom.

105 CELTIC: OLD IRISH (3). *On demand.* Holmes.

106 CELTIC: OLD WELSH (3). *On demand.* Holmes.

Courses for Graduates

210 PROSE WRITERS OF THE TWENTIETH CENTURY (3). Prerequisites, French 71, 72. *Spring.* Hardré.

211 LITERARY CRITICISM IN FRANCE: THE CLASSICAL PERIOD (3). (1961-1962 and alternate years.) *Spring.* Wiley.

212 LITERARY CRITICISM IN FRANCE: THE MODERN PERIOD (3). (1962-1963 and alternate years.) *Spring.* Engstrom.

220 VULGAR LATIN (3). (1962-1963 and alternate years.) *Fall.* Holmes.

221 OLD FRENCH (6). *Fall and spring.* Holmes.
222

225 PROVENÇAL (3). (1961-1962 and alternate years.) *Spring.* Linker.

248 FRENCH LITERATURE OF THE FOURTEENTH AND FIFTEENTH CENTURIES (3). Prerequisite, French 221 or 265. (1962-1963 and alternate years.) *Fall.* Linker.

265 FRENCH LITERATURE OF THE RENAISSANCE (3 each). (1962-1963
266 and alternate years.) *Fall and spring.* Lyons.

324 ROMANCE PALEOGRAPHY (3). (1961-1962 and alternate years.) *Fall.* Linker.

330 SEMINAR (3 or more). Member of the graduate faculty.

331 SEMINAR IN THE HISTORY OF FRENCH LITERATURE PRIOR TO 1300 (3). French 221 is desired, though not prerequisite. (1961-1962 and alternate years.) *Fall.* Holmes.

340 SPECIAL READINGS (3 or more). Member of the graduate faculty.

370 SEMINAR IN MINOR ROMANCE TONGUES (3). (1961-1962 and alternate years.) *Spring.* Holmes.

375 THESIS (3 or more). Member of the graduate faculty.

395 RESEARCH (3). Research in a special field under the direction of a member of the Department.

ITALIAN

Courses for Undergraduates

1-2 ELEMENTARY ITALIAN (6). *Three hours a week, through two semesters.* Lyons; staff.

Attention is called to Italian 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

3-4 INTERMEDIATE ITALIAN (6). *Three hours a week, through two semesters.* Lyons; staff.

14 BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.
15 *Three hours a week, fall and spring.* Lyons.

Courses for Graduates and Advanced Undergraduates

131 DANTE I (3). Prerequisites, Italian 14, 15. *Fall.* Huse.

132 DANTE II (3). Prerequisite, Italian 131. *Spring.* Huse.

156 DANTE IN ENGLISH TRANSLATION (Comparative Literature 156) (3). *Spring.* Huse.

161 ITALIAN LITERATURE OF THE RENAISSANCE (3). Prerequisite, Italian 15 or equivalent. (1961-1962 and alternate years.) *Fall.* Lyons.

181 THE ITALIAN SETTECENTO (3). Prerequisite, Italian 15 or equivalent (1961-1962 and alternate years.) *Spring.* Lyons.

Courses for Graduates

221 OLD ITALIAN (3). (1962-1963 and alternate years.) *Fall.* Holmes.

245 THE ITALIAN TRECENTO: PETRARCH AND BOCCACCIO (3). (1962-1963 and alternate years.) *Spring.* Lyons.

330 SEMINAR (3 or more). Member of the graduate faculty.

340 SPECIAL READINGS (3 or more). Member of the graduate faculty.

375 THESIS (3 or more).

395 RESEARCH (3). Research in a special field under the direction of a member of the Department.

PORTUGUESE

Courses for Undergraduates

1-2 ELEMENTARY PORTUGUESE (6). *Three hours a week, through two semesters.* Sharpe; staff.

Attention is called to Portuguese 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

3-4 INTERMEDIATE PORTUGUESE (6). *Three hours a week, through two semesters.* Sharpe; staff.

14 BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.
15 *Three hours a week, fall and spring.* Sharpe; staff.

Courses for Graduates and Advanced Undergraduates

101 MASTERPIECES OF PORTUGUESE LITERATURE (3). Prerequisites, Portuguese 15 or equivalent. (1962-1963 and alternate years.) *Fall.* Sharpe.

102 MODERN BRAZILIAN LITERATURE (3). Prerequisite. Portuguese 15 or equivalent. (1961-1962 and alternate years.) *Fall.* Sharpe.

Courses for Graduates

221 OLD PORTUGUESE (3). (1961-1962 and alternate years.) *Fall.* Holmes.

330 SEMINAR (3 or more). Member of the graduate faculty.

340 SPECIAL READINGS (3 or more). Member of the graduate faculty.

375 THESIS (3 or more).

395 RESEARCH (3). Research in a special field under the direction of a member of the Department.

SPANISH

Students interested in having a major in Spanish will please consult Mr. S. A. Stoudemire, Departmental Adviser.

Those students who plan to teach in public high schools should see "School of Education" in Part III.

The course requirements for the A.B. degree with a major in Spanish are as follows: Spanish 50, 51, 52, 53 71, 72, 113, 145. This program may be varied according to the student's special needs and preparation.

Courses for Undergraduates

1-2 ELEMENTARY SPANISH (6). *Three hours a week, through two semesters.* McKnight; staff.

Attention is called to Spanish 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

3-4 INTERMEDIATE SPANISH[6] (6). *Three hours a week, through two semesters.* McKnight; staff.

14 BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.
15 *Three hours a week, fall and spring.* Stoudemire, McKnight.

21 ADVANCED SPANISH (3). Sophomore elective. Masterpieces of Spanish literature. *Any semester.* Stoudemire, Adams, Keller, Duffey, Peyton, McKnight, Sharpe.

22 ADVANCED SPANISH (3). Sophomore elective. Contemporary Hispanic literature. *Any semester.* Stoudemire, Adams, McKnight.

50 ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (3). Prerequisite, intermediate Spanish. *Fall.* Stoudemire, McKnight.

6. Either of these courses may be taken for elective credit if the language requirement has already been satisfied.

51 SPANISH CONVERSATION AND COMPOSITION (3). *Any semester.* Duffey, Peyton, Cantarino.

52 SPANISH CIVILIZATION (CONVERSATION) (3). Prerequisite, Spanish 51. *Fall and spring.* Duffey.

53 SPANISH AMERICAN CIVILIZATION (CONVERSATION) (3). Prerequisite, Spanish 51. A survey in Spanish of the history and culture of Spanish America. *Fall.* Duffey.

71 SURVEY OF SPANISH LITERATURE TO 1700 (3). Prerequisite, Spanish 21. Open to juniors and seniors. *Fall.* Stoudemire, McKnight.

72 SURVEY OF SPANISH LITERATURE SINCE 1700 (3). This course is a continuation of Spanish 71. Open to juniors and seniors. *Spring.* Stoudemire, McKnight.

83 MATERIALS AND METHODS IN HIGH SCHOOL SPANISH (Education 83s) (3). *Spring.*

84 DIRECTED TEACHING OF HIGH SCHOOL SPANISH (Education 84s) (3). *Any semester.*

97 HONORS COURSE (3). Required of all students reading for honors in Spanish.

Courses for Graduates and Advanced Undergraduates

109 EARLY SPANISH PROSE FICTION (3). Prerequisites, Spanish 71, 72. (1962-1963 and alternate years.) *Fall.* Adams.

110 THE SPANISH NOVEL, 1605-1898 (3). Prerequisites, Spanish 71, 72. (1962-1963 and alternate years.) *Spring.* Adams.

111 MODERN SPANISH NOVELISTS (3). Prerequisites, Spanish 71, 72. (1961-1962 and alternate years.) *Fall.* Adams.

112 THE NOVEL IN SPANISH AMERICA (3). Prerequisites, Spanish 71, 72. (1961-1962 and alternate years.) *Spring.* Duffey, Sharpe.

113 SPANISH AMERICAN LITERATURE (3). Prerequisites, Spanish 71, 72. *Spring.* Duffey, Sharpe.

117 CERVANTES (3). Prerequisites, Spanish 71, 72. *Spring.* Stoudemire.

131 LOPE DE VEGA AND HIS CONTEMPORARIES (3). Prerequisites, Spanish 71, 72. *Fall.* Peyton.

132 CALDERON AND HIS CONTEMPORARIES (3). Prerequisites, Spanish 71, 72. *Spring.* Peyton.

134 SPANISH DRAMA OF THE NINETEENTH CENTURY (3). Prerequisites, Spanish 71, 72. (1962-1963 and alternate years.) *Spring.* Stoudemire.

135 MODERN SPANISH DRAMA (3). Prerequisites, Spanish 71, 72. (1961-1962 and alternate years.) *Spring.* Stoudemire, McKnight.

145 SPANISH PHONETICS (3). Prerequisites, Spanish 71, 72. *Fall.* Duffey.

Courses for Graduates

201 BIBLIOGRAPHY AND METHODOLOGY (3). Required of all candidates for the Ph.D. degree. *Fall.* Stoudemire.

209 SEMINAR IN NON-FICTION PROSE OF SIXTEENTH AND SEVENTEENTH CENTURIES (3). A study of the critical, historical, scientific, and philosophical writings of the sixteenth and seventeenth centuries. (1961-1962 and alternate years.) *Spring.* Stoudemire.

215 EARLY LYRIC POETRY (3). Prerequisites, Spanish 71, 72. (1961-1962 and alternate years.) *Fall.* Adams.

216 MODERN LYRIC POETRY (3). Prerequisites, Spanish 71, 72. (1961-1962 and alternate years.) *Spring.* Adams.

221 OLD SPANISH (6). *Fall and spring.* Keller.
222

241 SPANISH AMERICAN BIBLIOGRAPHY (3). (1962-1963 and alternate years.) *Spring.* Sharpe.

291 EARLY SPANISH LITERATURE (3). Prerequisite, Spanish 221-222. (1962-1963 and alternate years.) *Spring.* Keller.

330 SEMINAR (3 or more). Member of the graduate faculty.

340 SPECIAL READINGS (3 or more). Member of the graduate faculty.

375 THESIS (3 or more).

393 SEMINAR IN SPANISH ROMANTICISM (3). (1961-1962 and alternate years.) *Spring.* Adams.

395 RESEARCH (3). Research in a special field under the direction of a member of the Department.

SEMITIC

Courses for Graduates and Advanced Undergraduates

101 ELEMENTARY ARABIC (Linguistics 101) (3). Presentation of Arabic as a Semitic language. Study of the morphology and basic syntax of Arabic. *Fall.* Cantarino.

102 READING IN ARABIC (Linguistics 102) (3). Study of Arabic syntax; selected readings from the Koran and prose literature of the tenth century. Arabic influence of early Spanish. *Spring.* Cantarino.

110 MODERN LITERARY ARABIC (Linguistics 110) (3). Readings and analysis of modern literary Arabic. Special attention will be given to the Arabic daily press. *Fall.* Cantarino.

111 ARABIC RENAISSANCE (Linguistics 111) (3). Selected readings from the prose literature of the modern Arabic Renaissance. Introduction to Arabic poetry. *Spring.* Cantarino.

113 ELEMENTARY HEBREW (Linguistics 113-114) (Religion 113-114) (3).
114 The structure and basic vocabulary of the Hebrew language. A standard textbook will be supplemented by selected prose readings for the Old Testament. *Fall and spring.* Cantarino.

RUSSIAN
(See Germanic Languages)

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professors: C. E. BOWERMAN, *Chairman,* H. D. Meyer, S. H. HOBBS, JR., R. B. VANCE,[1] G. B. JOHNSON, KATHARINE JOCHER,[2] L. M. BROOKS,[2] W. B. SANDERS, E. W. NOLAND,[1] J. J. HONIGMANN, D. O. PRICE, J. W. THIBAUT, HARRIET HERRING, G. L. SIMPSON, JR., H. L. SMITH

Associate Professors: J. GULICK,[3] J. L. COE, C. J. ERASMUS, E. Q. CAMPBELL, R. L. SIMPSON, R. LIEBAN, R. PATRICK

Assistant Professors: H. D. SESSOMS, L. LEVINE, H. J. CROCKETT, RUTH E. SEARLES, G. R. HOLCOMB, W. S. POLLITZER, JEAN HARMON THRASHER

Lecturer: J. KOSA

Lecturer in the Hospital Recreation Curriculum: FRANCES CLEARY

Instructor: E. KIMBROUGH, JR.

Teaching Fellow: C. M. BONJEAN

Graduate Teaching Assistants: E. M. DOLAN, H. E. HODGES, G. J. HUNT, S. ITO, E. R. LAMMENS, R. J. MCCORKEL, JR., W. E. NOVASKY

Research Assistants: R. G. AMES, C. N. ALEXANDER, JR., B. BRADSHAW, P. R. DOMMERUTH, M. H. DRAKE, J. R. EARLE, N. L. GATES, J. R. GOLD, W. L. GRAVES, P. E. HORNE, J. M. JORGENSON, J. KEITH, R. A. LAMANNA, J. W. LELLA, D. W. MCMURRY, H. M. MILLER, B. MONGEAU, R. NONAS, C. Z. NUNN, H. B. PRESSER, D. M. SCOTT, G. A. SESSIONS, M. L. SHIELDS, F. C. SWEZY, E. M. THEMO, J. VAN TIL, C. R. WINGROVE, J. A. WILLIAMS, C. M. WOLF, H. M. WYSONG

The undergraduate major program in Sociology and Anthropology is designed to provide pre-professional training in the social sciences as well as a mature understanding of social behavior as a basis for general education. With the assistance of his adviser in the Department, the student may elect a course of study to provide a foundation for a variety of occupations.

UNDERGRADUATE MAJOR: Sociology 51 and Anthropology 41, preferably taken in the sophomore year, are required of all majors and are prerequisite to other courses in the Department except where otherwise indicated. Majors[4] will plan their courses, with the help of an adviser, according to the following schedule:

SOCIOLOGY: Sociology 56 and five other courses in sociology (of which at least two must be selected from among Sociology 122, 133, 134, 136, 152, 153, 168, 186, 191), seven allied courses, seven nondivisional courses. Sociology majors may take as many as three courses in anthropology in the allied field.

ANTHROPOLOGY: Six courses in anthropology, Sociology 56, and six allied courses, seven nondivisional courses. Anthropology majors may take as many as three sociology courses in the allied field.

SOCIOLOGY-ANTHROPOLOGY (split major): Three sociology courses (including Sociology 56), three anthropology courses, seven allied courses, seven nondivisional courses.

1. Kenan Professor.
2. Professor, Emeritus.
3. Absent on leave, 1961-1962.
4. Sociology 52 is not creditable within the six-course major in sociology-anthropology. Transfer majors will usually lack Anthropology 41 which is creditable in the allied field when taken by sociology majors; likewise Sociology 51 is allied for anthropology majors.

RECREATION LEADERSHIP: Sociology 56, four or five courses from among 173, 174, 176, 177, 178, 179, one or two additional courses in sociology.

GRADUATE DEGREES: The A.M. and Ph.D. degrees are offered in sociology and in anthropology. It is the purpose of the graduate program to provide professional training for sociologists, anthropologists,[5] and, in conjunction with the Department of Psychology, for social psychologists. Candidates for the A.M. or Ph.D. degree in sociology or anthropology may minor in any of the other social sciences, or in the related field of statistics, planning, public health, and social work. A minor split between two fields is possible for the Ph.D. degree with special permission of the Graduate School. The Master of Science degree is offered for students specializing in Recreation Administration (see further description at end of this section under "Recreation Administration").

Students in other departments may take a minor for the A.M. or Ph.D. degrees in general sociology or anthropology if appropriate prerequisite courses have been completed. Minor courses should be selected through consultation with the Chairman of the Department.

More detailed information about the graduate program of sociology and in anthropology is available in the Graduate School Catalogue and in mimeographed materials available from the Department upon request.

Courses in Anthropology and Recreation Administration *are grouped separately* following the courses in general sociology. These courses will carry the designation of "Anthropology" or "Recreation Administration" on registration forms.

SOCIOLOGY

Unless otherwise specified, Sociology 51 is prerequisite for sociology courses above 100 and Anthropology 41 is prerequisite for anthropology courses above 100.

Courses for Undergraduates

51 INTRODUCTION TO SOCIOLOGY (3). The scientific study of principles and comparisons in society and culture as these relate to social groups, organization, process, institutions, stratification change, trends, and control. *Fall and spring.* Staff.

52 SOCIAL PROBLEMS (3). No prerequisite. Elective for students not majoring in this Department. Introductory course in social problems with primary emphasis on both the positive and pathological features of society. *Fall and spring.* Staff.

5. Certain courses in anthropology also carry credit in general sociology.

56 HOW TO STUDY SOCIETY (3). Prerequisites, Sociology 51 and Anthropology 41. An introduction to the methods of studying society with special emphasis on the methods discussed in actual research reports. Required of majors in both sociology and anthropology. *Fall and spring.* Staff.

60 THE FIELD OF SOCIAL WORK (3). For sociology majors; others by special permission. An orientation course based on the description and analysis of the historical development of social work and the operation in contemporary society of the many specialized social work services. *Fall.* Staff.

62 MARRIAGE AND THE FAMILY (3). Open to General College students, juniors and seniors. Analysis of courtship, marriage and family relationships. *Fall and spring.* Staff.

65 THE PUBLIC SOCIAL SERVICES (3). For sociology majors, others by permission. An analysis of the social services which are offered under public auspices through city, county, state, and federal agencies. *Spring.* Staff.

70 INDUSTRIAL SOCIOLOGY (3). The place of sociology in the study of industrial relations. The application of social scientific principles to the analysis of social relationships in business, with special emphasis on industrial firms. *Fall and spring.* Noland.

75 COMMUNITY ORGANIZATION (3). Processes, integration, and change in the community. Analysis and comparison of rural and urban communities with respect to structural features, communication processes, and basic institutions. Changing role of the local community in the total society. *Fall.* Richard Simpson.

95 HONORS SEMINAR (3). Advanced survey of sociology and critical analysis of leading theoretical ideas in the field. Open only to senior honors candidates. *Fall.* Staff.

96 HONORS RESEARCH (3). Special research in a selected field under the direction of a member of the Department. Open only to senior honors candidates. *Spring.* Staff.

Courses for Graduates and Advanced Undergraduates

101 NORTH CAROLINA: ECONOMIC AND SOCIAL (3). This course is designed to familiarize the student with North Carolina: population, agriculture, resources, social life, economic development, industry, wealth, taxation, education, public welfare. *Fall.* Hobbs.

102 RURAL SOCIOLOGY (3). Topics include rural society and rural sociology, socio-economic aspects of agriculture, conditions and movements of rural population, rural social institutions and agencies, bio-social conditions, socio-cultural conditions, rural-urban relations. *Fall.* George Simpson.

103 HISTORY OF AGRICULTURAL AND RURAL INSTITUTIONS (3). This course traces the development of agriculture from its earliest beginnings to the present: early development; Greece and Rome; later agriculture in Europe; American agricultural institutions. (Not offered in 1962-1963.)

107 FOUNDATIONS OF THE SOCIAL SCIENCES (Philosophy 107) (3). Prerequisites, two courses in philosophy, psychology, or sociology. (See Philosophy 107 for description.) (1961-1962 and alternate years.) *Spring.* Natanson.

121 CULTURE AND PERSONALITY (Anthropology 121) (3). (See Anthropology 121 for description.) (1961-1962 and alternate years.) *Spring.* Honigmann.

122 CULTURAL ANTHROPOLOGY (Anthropology 122) (Folklore 122) (3). (See Anthropology 122 for description.) *Fall.* Johnson.

125 THE NEGRO (3). A study of the Negro community and its institutions, status of the Negro in American society, problems of race relations, and the process of integration. *Spring.* Johnson.

128 FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (Folklore 128) (3). (See Anthropology 128 for description.) (1962-1963 and alternate years.) *Spring.* Gulick.

133 INTRODUCTION TO SOCIAL PSYCHOLOGY (Psychology 133) (3). Examination of social systems from various points of view, stressing interpersonal relations and representative methods of observation, experiment, and analysis. *Spring.* Crockett.

134 COLLECTIVE BEHAVIOR (Psychology 134) (3). A study of the elementary forms of social organization. Forces external to the person that operate in social movements, crowds, revolutions, fashion, and similar phenomena are emphasized. Special attention paid to revivalistic movements as found in religious sects. *Fall.* Campbell.

136 COMPARATIVE SOCIAL ORGANIZATION (Anthropology 136) (3). (See Anthropology 136 for description.) (1962-1963 and alternate years.) *Fall.* Gulick.

152 HISTORY OF SOCIAL THOUGHT (3). Prerequisite, introductory course in one of the social sciences or philosophy. Emphasis on historic social ideas of Western culture considered against a background of general cultural analysis in terms of systematic theory. *Fall.* Vance.

153 SOCIAL STRUCTURE (3). Analysis of social structure and stratification in terms of class, status, prestige, rank, and function. Attention is given to the social role of the elite, bureaucracies, and professional and middle classes. *Fall.* Vance.

154 CONTEMPORARY SOCIETY (3). Prerequisites, three courses in sociology. The study of the cultural evolution of society from the viewpoint of the folk regional development: folkways, stateways, geographic factors, regions, states, modern technology and change, the application to contemporary American society. (Not offered in 1962-1963.) *Spring.* George Simpson.

161 SOCIOLOGY OF THE FAMILY (3). Analysis of the family institution as a background for the study of family interaction: socialization and the parent-child relationship, courtship and marriage interaction, family crises and problems. *Spring.* Crockett.

162 DYNAMICS OF FAMILY DEVELOPMENT (3). Analysis of the natural history of families, how they form, function, and grow to maturity. Focus on the developmental growth of children and parents in interaction in seven stages of the family life cycle. (Not offered in 1962-1963.) *Spring.* Bowerman.

165 COMMUNICATION AND OPINION (Journalism 165) (Psychology 165) (3). (See Psychology 165 for description.) *Fall and spring.* Danielson.

166 THE RURAL COMMUNITY (3). The rural community as a sociological group, evolution of the rural community, village-community economy, social institutions, social organization, social control, sociological significance, the future of the rural community. (Not offered in 1962-1963.)

168 THE CITY (3). The city as a social phenomenon in the modern world. Analysis of urban trends, characteristics, and functions; urban social organization. Sociological elements in housing, urban planning, and metropolitan dominance. Growth patterns in new centers of urbanization. *Spring.* Campbell.

169 THE INDUSTRIAL COMMUNITY (3). Development of the industrial community since the Industrial Revolution; effect of changing conditions and differences in surrounding society; paternalism, labor laws, economic and labor problems as they affect the industrial community. *Spring.* Herring.

170 SOCIOLOGY OF RELIGION (Religion 170) (3). (See Religion 170 for description.) *Spring.* Nash.

173 COMMUNITY RECREATION (Recreation Administration 173) (3). (See Recreation Administration for description.) *Fall and spring.* Meyer.

180 STATE AND REGIONAL PROBLEMS AND PLANNING (3). A study of the theory of regional cultural development and of regional planning in this broad context. Special attention is given to state and regional planning in the United States. *Spring.* George Simpson.

181 REGIONAL SOCIOLOGY OF THE SOUTH (3). A sociological analysis of the southern region of the United States. Emphasis on facts, factors, and policies pertaining to geography, population, and culture; resources and waste; social institutions and planning. *Fall and spring.* George Simpson.

186 POPULATION (3). A study of problems of quality and quantity of population including theories of population increase and problems of composition, distribution, differential fertility, population pressure, and internal migration. *Spring.* Vance.

190 DIAGNOSIS OF JUVENILE DELINQUENCY (3). After a brief historical background this course traces the development of case study and diagnosis of juvenile delinquency through various approaches. *Fall.* Sanders.

191 SOCIAL STATISTICS (3). Prerequisites, three courses in sociology. Carries no credit for A.M. minor in sociology. Elementary descriptive statistics and basic principles of statistical inference including estimation and tests of hypotheses. Required of all candidates for graduate degrees in sociology. *Fall and spring.* Staff.

192 CRIMINOLOGY (3). The principles of criminology and penology with emphasis on psychosociological factors; study of historical and contemporary theory and practice. *Fall and spring.* Sanders.

193 SOCIAL PATHOLOGY (3). Not open to students credited with Sociology 52. Poverty, relief, delinquency, vagrancy, prostitution, alcoholism, crime, mental defects, and other pathological conditions. Analysis of therapeutic measures. Field trips to county and state institutions. *Spring.* Sanders.

195 INTERMEDIATE SOCIAL STATISTICS (3). Prerequisite, Sociology 191 or equivalent. Basic analysis of variance; correlation analysis, including multiple and partial; non-parametric measures of relationships; statistical inference. *Fall.* Price.

197 POPULATION STATISTICS (Statistics 197). (3). Training and techniques for quantitative research with population data; composition characteristics, making of population estimates, computation and standardization of birth and death rates, construction and application of life tables, measurement of migration. (Not offered in 1962-1963.) Price.

198 TREATMENT OF JUVENILE DELINQUENCY (3). Emphasis on the juvenile court and various means of prevention and treatment of juvenile delinquency. Field trips. *Spring.* Sanders.

199 MODERN PENOLOGY (3). Prerequisite, Sociology 192 or equivalent. Specialized study of trends, legislation, experiments, and accomplishments in correctional programs. Such topics as parole, classification, and personnel will be emphasized. (Not offered in 1962-1963.) Sanders.

Courses for Graduates

208 METHODS IN SOCIAL RESEARCH (3). Formulation of the research problem; steps and problems in the design of social research; methods of data collection; analysis and interpretation of data. *Fall.* Bowerman.

209 SURVEY RESEARCH METHODS (3). Experience in planning a field survey; construction of questionnaire and schedule; instructions for enumerators; interviewing, coding and machine processing of data, analysis and presentation of results. *Spring.* Campbell.

210 FOLK SOCIOLOGY (Folklore 210) (3). Folk sociology as a subject field for the historical study of total human society and the empirical study of group behavior. (Not offered in 1962-1963.) *Fall.* George Simpson.

212 AMERICAN SOCIOLOGISTS (3). A general treatise on the rise and development of American sociology and a survey of the work and personalities of American sociologists projected on the background of social theory and research. *Spring.* George Simpson.

218 HUMAN ECOLOGY (SEMINAR) (3). Consideration of theory and research emerging around the concept of human ecology. A review of the background of human ecology is followed by readings, reports, and research on its contemporary development. (Not offered in 1962-1963.) Vance.

220 THEORIES OF CULTURE (Anthropology 220) (3). (See Anthropology 220 for description.) (1961-1962 and alternate years.) *Fall.* Honigmann.

221 FIELD METHODS IN CULTURAL ANTHROPOLOGY (Anthropology 221) (3). (See Anthropology 221 for description.) *Spring.* Honigmann.

227 THEORIES OF PERSONALITY (Psychology 227) (3). (See Psychology 227 for description.) *Fall.*

228 ADVANCED SOCIAL PSYCHOLOGY (Psychology 228) (3). (See Psychology 228 for description.) *Spring.* Thibaut.

230 CULTURE CONTACTS AND ACCULTURATION (Anthropology 230) (Folklore 230) (3). (See Anthropology 230 for description.) *Spring.* Johnson.

233 METHODS OF SOCIAL PSYCHOLOGY (Psychology 233) (3). (See Psychology 233 for description.) *Spring.* Thibaut, Schopler.

235 MEASUREMENT OF ATTITUDES (Psychology 235) (3). (See Psychology 235 for description.) *Spring.* Upshaw.

239 ADVANCED INDUSTRIAL SOCIOLOGY (3). Social theory and productive systems; the meaning and organization of work; the dynamics of getting work done; management of work organization; the social structure of trade unionism; work organizations and society. *Fall.* Noland.

240 SOCIAL RESEARCH IN INDUSTRIAL RELATIONS (3). Prerequisite, permission of the instructor. Systematic analysis of theories and procedures of the behavioral sciences as they relate to research in labor and industrial relations. Research project design. (Not offered in 1962-1963.) Noland.

245 BEHAVIOR IN LARGE GROUP ORGANIZATIONS (3). Prerequisite, permission of the instructor. Processes and forms of social behavior and personality in selected administrative organizations: theory and research methods. *Spring.* Noland.

253 ADVANCED SOCIAL STATISTICS (3). Prerequisites, Sociology 191 and 195. Multiple and partial correlation, analysis of variance and covariance, sampling, and other topics applicable to specific research projects of the student. *Spring.* Price.

262 EUROPEAN SOCIOLOGICAL THEORY (3). Theory in sociological research. Major methodological and theoretical orientations. Development from European backgrounds of current theories of differentiation, integration, change, social systems, and structural-functional analysis. Required of Ph.D. candidates in sociology. *Fall.* Richard Simpson.

265 THE SOCIOLOGY OF HEALTH AND THE HEALTH PROFESSIONS (3). Registration by permission of the instructor. Reviews the work done in the area of convergent interests of the medical and social sciences with emphasis on further research. *Spring.* Smith.

274 ADVANCED COMMUNITY SOCIOLOGY (3). Analysis of theory and research in the sociology of the community. *Spring.* Richard Simpson.

301 READING AND RESEARCH (3 each semester). Registration by permis-
302 sion of the instructor. Advanced reading, library research or field research on a selected topic under guidance of the instructor. *Fall and spring.* Staff.

313 SEMINAR IN SOCIAL STRUCTURE (3). Prerequisite, Sociology 153 or equivalent. An analysis of social structure at an advanced level. Each member of the seminar will develop research findings and critical bibliography together with a substantive report for his chosen area. *Spring.* Vance.

315 READING AND RESEARCH IN METHODOLOGY (3 each semester).
316 Registration by permission of the instructor. Special work on selected problems of research methodology. *Fall and spring.* Staff.

321 FIELD RESEARCH (3 each semester). *Fall and spring.* Staff.
322

326 SEMINAR IN SELECTED TOPICS (3 each semester). *Fall and spring.*
327 Staff.

328 SEMINAR IN SOCIAL PSYCHOLOGY (Psychology 328) (3). (See Psychology 328 for description.) *Either semester, as announced.* Staff.

329 SEMINAR IN SOCIALIZATION AND GROUP PROCESS (3). Prerequisites, Sociology 133 or equivalent and permission of the instructor. Analysis of theoretical issues and empirical research relevant to socialization. Special emphasis upon group process effects on the evolution of the social self, the "fit" between personality and role, and other issues. *Fall.* Crockett.

333 SEMINAR IN MARRIAGE AND THE FAMILY (3). (Not offered in 1962-1963.) *Fall.* Bowerman.

334 CRITIQUE OF RESEARCH IN MARRIAGE AND THE FAMILY (3). This seminar reviews the basic conceptual frameworks used in family research in the past; identifies changing emphasis in family study; and evaluates current studies in the major fields of family research. *Spring.* Bowerman.

340 SEMINAR IN MEDIA ANALYSIS (Journalism 340) (Psychology 340) (3). (See Psychology 340 for description.) *Spring.* Danielson.

341 MASTER'S THESIS (3). Individual research in a selected field under the direction of a member of the Department. *Fall and spring.* Staff.

342 DOCTORAL DISSERTATION (3). Individual research in a selected field under the direction of a member of the Department. *Fall and spring.* Staff.

ANTHROPOLOGY [6]

41 GENERAL ANTHROPOLOGY (3). An introduction to anthropology, the science of man the culture-bearing animal. Topics considered: physical evolution of mankind, modern racial types, prehistoric and historic developments of culture, and cultural dynamics viewed analytically and comparatively. *Fall and spring.* Staff.

55 INTRODUCTION TO THE CIVILIZATION OF INDIA AND PAKISTAN (3). The course reviews urban and rural ways of life and the transformation of culture following British rule. Islam, Buddhism, caste, family life, and values are examined as well as several ways of life and problems besetting the countries as they pursue national goals. (Not offered in 1962-1963.) *Fall.* Honigmann.

95 HONORS READING COURSES (3 each semester). Prerequisite, for honors
96 program, approval of the Chairman of the Department. Special reading for honors in a selected field under the direction of a member of the Department. A student may take only two courses in the honors program. *Fall and spring.* Staff.

Courses for Graduates and Advanced Undergraduates

100 OLD WORLD PREHISTORY (3). A course designed to provide anthropology majors and other students of comparable behavioral science sophistication with a basic background in the development of man and culture in the Old World. *Fall.* Coe.

112 PHYSICAL ANTHROPOLOGY (Anatomy 112) (3). (See Anatomy 112 for description.) *Spring.* Staff.

113 INTRODUCTION TO DESCRIPTIVE LINGUISTICS (Linguistics 100) (3). A survey of descriptive linguistics, including phonetic description, and phonemic and grammatical analysis. Related topics, such as information theory and language and culture will also be considered briefly. *Fall.* Levine.

6. As indicated, certain courses in anthropology also carry credit in general sociology.

114 INTRODUCTION TO COMPARATIVE AND HISTORICAL LINGUISTICS (Linguistics 101) (3). (See Curriculum in Linguistics for description.) (1962-1963 and alternate years.) *Spring.* Arndt.

120 CULTURAL DEVELOPMENT AND AMERICAN AID (3). Anthropological theories of cultural and social change are used to evaluate directed changes in agriculture, public health, community development, etc., and general problems of American aid to underdeveloped areas. *Fall.* Erasmus.

121 CULTURE AND PERSONALITY (Sociology 121) (3). A scientific analysis of the influence of cultural forms on the individual in our own and other societies, considered from the anthropological, psychological, and clinical points of view. *Spring.* Honigmann.

122 CULTURAL ANTHROPOLOGY (Sociology 122) (Folklore 122) (3). Ordinarily may not be taken for credit by graduate majors and minors for anthropology. A systematic survey of the customs and modes of life of mankind based on scientific explanation of the ways of culture. *Fall.* Johnson.

123 ANTHROPOLOGY OF RELIGION (Folklore 123) (3). Common elements of sacred and secular ritual in human society; their contribution to the strengthening of values and maintenance of social organization; how communities conceive the universe to be organized and cope with threat and uncertainty. (1961-1962 and alternate years.) *Fall.* Honigmann.

126 AFRICA: PEOPLES AND CULTURES (Folklore 126) (3). A survey of geography, races, languages, and cultures of Africa south of the Sahara, with some attention to current problems of rapid social change. *Fall.* Johnson.

127 NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (Folklore 127) (3). Modern Mexico and Central America seen against the background of archaeology, physical anthropology, and aboriginal culture, including both the "high cultures" of the Aztec and Mayas and the tribal cultures of various regions. (Not offered in 1962-1963.) Erasmus.

128 FOLK CULTURES IN THE MODERN WORLD (Sociology 128) (Folklore 128) (3). The folk culture is viewed as a way of life which stands midway between that of the "primitive" tribal native and that of the urbanized city-dweller. (1962-1963 and alternate years.) *Spring.* Gulick.

129 PEOPLES OF OCEANIA (Folklore 129) (3). The development and nature of recent and existing cultures in Indonesia, native Australia, Melanesia, Micronesia, and Polynesia. Emphasis on important theoretical and methodological issues which have arisen from Oceanic research. (1961-1962 and alternate years.) *Fall.* Gulick.

130 INDIANS OF NORTH AMERICA (3). A descriptive study of the culture areas of North America at the time of European contact, with emphasis on the Southeast. *Spring.* Coe.

132 LATIN AMERICAN CULTURE (3). Problems of Latin American cultural development and social change and their importance for North Americans are evaluated in the light of anthropological concepts and theories. *Spring.* Erasmus.

135 THE NATURE OF CULTURE (3). Symbolizing as the primal mechanism of culture, exemplified in the arts, religions, social and linguistic structures, and world-view of various cultures. (Not offered in 1962-1963.) Staff.

136 COMPARATIVE SOCIAL ORGANIZATION (3). An analysis of recurrent types of social groups: kinship systems, localized communities, and supra-community structures. Types are viewed in terms of a world-wide sample of societies of various scales of complexity. (1962-1963 and alternate years.) *Fall.* Gulick.

137 THE MIDDLE EAST: PEOPLES AND CULTURES (3). Emphasis on current acculturation problems as related to the various ecological, social, linguistic, and religious systems of the area whose cultural history is also considered. (1962-1963 and alternate years.) *Fall.* Gulick.

149 SOCIAL ORGANIZATION IN INDIA (3). Intensive coverage of Indian social organization. (1962-1963 and alternate years.) *Spring.* Levine.

150 ARCHAEOLOGY OF NORTH AMERICA (3). A study of the growth of American Indian cultures north of the Rio Grande as interpreted by archaeological research. Special emphasis on the prehistory of North Carolina and the eastern woodlands. *Fall.* Coe.

151 RESEARCH METHODS IN ARCHAEOLOGY (3). A study of the basic principles underlying archaeological study of prehistoric sites. Field trips and laboratory work. *Spring.* Coe.

185 INTRODUCTION TO FOLKLORE (Folklore 185) (Comparative Literature 185) (English 148) (3). (See Folklore 185 for description.) *Fall.* Hudson.

Courses for Graduates

200 ADVANCED SURVEY OF ANTHROPOLOGY (3). An intensive survey of all branches of anthropology as a scientific discipline, with attention to current findings and orientations. Required of all graduate majors and minors in anthropology. *Spring.* Gulick.

213 PHONETICS AND PHONEMICS (Linguistics 213) (3). Prerequisites, Anthropology 113 or permission of the instructor. This course provides additional training in phonetics and considers in detail problems of descriptive phonology. *Two hours of lecture and two hours of informant work a week, spring.* Levine.

214 GRAMMATICAL ANALYSIS: MORPHOLOGY (Linguistics 214) (3). Prerequisite, Anthropology 213. This course considers problems of morphological and morphophonemic analysis. (1962-1963 and alternate years.) *Two hours of lecture and two hours of informant work a week, fall.* Levine.

215 GRAMMATICAL ANALYSIS: SYNTAX (Linguistics 215) (3). Prerequisite, Anthropology 213. This course considers problems of syntactic analysis and of grammatical hierarchy. (1962-1963 and alternate years.) *Two hours of lecture and two hours of informant work a week, fall.* Levine.

220 THEORIES OF CULTURE (Sociology 220) (3). In seminar fashion two or three major theoretical positions, like varieties of functionalism and neo-evolutionism, are critically examined. A number of additional theories will be suggested for written reports. The history of ethnology is also reviewed. (1962-1963 and alternate years.) *Fall.* Honigmann.

221 FIELD METHODS IN CULTURAL ANTHROPOLOGY (Sociology 221) (3). Practical exercise and discussion cover topics of role taking, observation, interviewing, note taking, and pattern generalization. (1962-1963 and alternate years.) *Spring.* Honigmann.

230 CULTURE CONTACTS AND ACCULTURATION (Sociology 230) (Folklore 230) (3). An analysis of situations involving contact of peoples of different cultural traditions, with emphasis on the development of theory and method in the study of acculturation. *Spring.* Johnson.

234 CULTURES OF NORTHERN NORTH AMERICA (3). Cultural dynamics as manifested in the lifeways of the Indians, Eskimo, and white settlers of the Arctic and sub-Arctic. Emphasis on contemporary trends and research possibilities. (1962-1963 and alternate years.) *Fall.* Honigmann.

293 FIELD METHODS IN PHONOLOGICAL ANALYSIS (Linguistics 293) (3). Prerequisite, Anthropology 213, and either 214 or 215. This course and the following offer an opportunity to attempt the recording and analysis of the language of a selected informant. *One hour of lecture and four hours of informant work a week, fall.* Levine.

294 FIELD METHODS IN GRAMMATICAL ANALYSIS (Linguistics 294) (3). Prerequisite, Anthropology 293. *One hour of lecture and four hours of informant work a week, spring.* Levine.

301 READING AND RESEARCH (3 each). *Fall and spring.* Staff.
302

315 READING AND RESEARCH IN METHODOLOGY (3 each). *Fall and*
316 *spring.* Staff.

321 FIELD RESEARCH (3 each). *Fall and spring.* Staff.
322

327 SEMINAR IN SELECTED TOPICS (3 each). *Fall and spring.* Staff.
328

341 MASTER'S THESIS (3). Individual research in a selected field under the direction of a member of the Department. *Fall and spring.* Staff.

342 DOCTORAL DISSERTATION (3). Individual research in a selected field under the direction of a member of the Department. *Fall and spring.* Staff.

RECREATION ADMINISTRATION

The undergraduate major in Recreation Administration is designed to provide a wide range of educational experiences for those entering into any one of the several recreation specialities. Attention is focused upon the general arts and skills of recreation work which may be adapted upon graduation to such fields of service as municipal recreation, industrial recreation, hospital recreation, and others.

UNDERGRADUATE MAJOR: Sociology 51 and Sociology 52, preferably taken in the sophomore year, are required of all majors and are prerequisite to other courses except where otherwise indicated. The major will consist of eight courses, four or five courses

entitled Recreation, and four or three courses Sociology electives. Recreation 173 and Sociology 56 are required of all majors.

GRADUATE DEGREE: The Master of Science degree in Recreation Administration is offered. A common core of courses is required. A split minor from two departments may be selected. All students admitted to this program must fulfill requirements for admission to the Graduate School (see Graduate School Catalogue).

The program requires Recreation Administration 271 and 341 as prerequisites for graduation. Students emphasizing recreation in the medical setting are required to take Recreation Administration 272 and 273.

Recreation Administration 173 or permission of the instructor is prerequisite to all other Recreation Administration courses.

Courses for Graduates and Advanced Undergraduates

173 COMMUNITY RECREATION (Physical Education 173) (Sociology 173) (3). Foundations of organized recreation; backgrounds and theories; objectives and principles; social and economic factors; public, private, and commercial interests; recreation and the social institutions. *Fall and spring.* Meyer.

174 SUPERVISED FIELD TRAINING IN RECREATION (3). Prerequisite, three or more courses in recreation. Supervised field experience in recreation; students will have opportunity to receive varied practical on-the-job experience in one of many agency types. *Fall and spring.* Sessoms.

176 PROGRAM PLANNING FOR COMMUNITY RECREATION (3). The fields of activity; types, correlations, and program activities; principles and methods of program planning; schedules according to time basis; special activities and feature events. *Spring.* Sessoms.

177 ADMINISTRATION OF RECREATION (3). Analysis of recreation from the standpoint of organization; administration; finances; budget; reports and records; leadership and training; legislation; publicity and public relations; coordination of community resources; program operation. *Fall.* Meyer.

178 METHODS AND TECHNIQUES OF RECREATION LEADERSHIP (3). A study of the field of recreation leadership; principles of leadership; status of profession; job analysis; staff organization and employment practices; professional education and training; role of volunteer; principles of supervision. *Fall.* Sessoms.

179 PLANNING AND MAINTAINING RECREATION AREAS AND FACILITIES (3). Analysis of the principles of functional planning; the problems of design and construction; the use of special facilities; the role of Federal and State lands; and the problems and techniques of maintenance. *Spring.* Sessoms.

Courses for Graduates

271 PROBLEMS OF ORGANIZED RECREATION (3). To promote insight into some problems confronting organized recreation in community life; interpret and analyze the problems, determine specific needs; plan for adjusting the problems. *Spring.* Meyer.

272 RECREATION IN THE MEDICAL SETTING (3). An analysis of recreation in the medical setting with particular emphasis given to the objectives, procedures and resources necessary to organize and administer hospital recreation. *Fall.* Cleary.

273 PROGRAM PLANNING IN THE MEDICAL SETTING (3). Basic factors of program planning: adaption of activities for the ill and handicapped; individual and group; development of special events and activities; role of volunteer patient and professional leaders; adaption of areas, facilities, equipment and resources to the hospital setting. *Spring.* Cleary.

301 READING AND RESEARCH (3 each semester). Registration by permission
302 of the instructor. Advanced reading, library research or field research on a selected topic under guidance of the instructor. *Spring.* Staff.

341 MASTER'S THESIS (3). Individual research in a selected field under the direction of a member of the Department. *Fall and spring.* Staff.

SPEECH
(See English)

DEPARTMENT OF STATISTICS

Professors: G. E. NICHOLSON, JR., *Chairman,* HAROLD HOTELLING,[1] R. C. BOSE,[2] S. N. ROY, WASSILY HOEFFDING
Associate Professors: W. J. HALL, W. L. SMITH
Visiting Assistant Professor: I. M. CHAKRAVARTI
Research Associates: P. K. BHATTACHARYYA, C. R. HEATHCOTE, R. F. POTTHOFF, S. N. SRIVASTAVA
Research Assistants: J. W. ADAMS, S. J. AMSTER, S. P. BHATIA, FRANK FISH, J. J. GOODE, M. D. HOGAN, J. T. MADEJ, G. S. MUDHOLKAR, M. R. NOVICK, R. E. THOMAS, Y. S. SATHE, M. SCOTT, W. G. WARREN, E. H. WINTER, G. J. J. VANZYL

Although the Department of Statistics is primarily a graduate department, basic courses in statistical analysis and theory are offered for undergraduates majoring in other fields and for undergraduates preparing to do graduate work in statistics. Students who have limited mathematical backgrounds and who plan to take a single course in statistics should elect Statistics 100. The basic analysis sequence consists of Statistics 101 and 102. The basic theory of statistics, required for all advanced work in the Department, is contained in Statistics 134, 135, and 150, and the basic probability theory, also essential for advanced work, is contained in Statistics 131 (or 134) and 132. Statistics 111 treats a number of mathematical topics necessary for advanced work in probability and statistics. These courses contain the fundamentals of the modern theory and methodology of statistics and are recommended for students in all fields.

1. Kenan Professor.
2. Absent on leave, 1961-1962.

Other statistics courses of special interest to undergraduates are Statistics 133, 182, 183, 197, and 198, and courses offered by the Department of Experimental Statistics (State College) and Biostatistics (School of Public Health) and others.

Master of Science and Doctor of Philosophy degrees are offered by the Department. Although desirable, previous work in statistics and probability is not essential for graduate study in statistics; a sound background in mathematics is of greater importance. Advanced calculus is an essential prerequisite, and courses in matrices and real and complex variable theory are recommended, as well as courses in any intended field of application.

For further information concerning the graduate program, graduate fellowships and assistantships, the facilities of the Department and other cooperating units, careers in statistics, etc., see the Graduate School special bulletin on statistics which may be obtained from the Department; also see the Graduate School Catalogue and the section of this catalogue entitled Institute of Statistics.

Courses for Graduates and Advanced Undergraduates

For descriptions of the courses listed below see the Graduate School special bulletin on statistics.

100 PRINCIPLES OF STATISTICAL INFERENCE (City Planning 100) (3). Prerequisite, college algebra. *Fall.* Nicholson.

101 STATISTICAL ANALYSIS I (Public Health 123) (4). Corequisite, integral calculus. *Three lecture and two laboratory hours a week, fall.* Nicholson, Kuebler.

102 STATISTICAL ANALYSIS II (Public Health 124) (3). Prerequisite, Statistics 101. *Two lecture and two laboratory hours a week, spring.* Nicholson, Kuebler.

111 METHODS OF MATHEMATICAL STATISTICS I (3). Prerequisite, advanced calculus. *Fall.* Smith.

131 ELEMENTARY PROBABILITY (3). Prerequisite, advanced calculus. *Fall.* Hall.

132 INTERMEDIATE PROBABILITY (3). Prerequisites, Statistics 131 or 134 (or advanced calculus and Mathematics 120) and Statistics 111 or complex variable theory. *Spring.* Smith.

133 LEAST SQUARES AND TIME SERIES (3). Prerequisites, Statistics 131 or 134 and matrix theory. *Spring.* Hotelling.

134 STATISTICAL THEORY I (5). Prerequisite, advanced calculus. *Four lecture and two laboratory hours a week, fall.* Hall.

135 STATISTICAL THEORY II (3). Prerequisite, Statistics 131 or 134. *Two lecture and two laboratory hours a week, spring.* Hall.

144 CORRELATION, CONTINGENCY, AND CHI TESTS (3). Prerequisites, Statistics 135 and matrix theory. *Spring.* Hotelling.

150 ANALYSIS OF VARIANCE WITH APPLICATION TO EXPERIMENTAL DESIGNS (3). Prerequisite, matrix theory; corequisite, Statistics 135. *Spring.* Bose.

182 MATHEMATICAL ECONOMICS (Economics 182) (3). Prerequisite, advanced calculus; corequisite, matrix theory. (1962-1963 and alternate years.) *Fall.* Hotelling.

183 ADVANCED MATHEMATICAL ECONOMICS (Economics 183) (3). Prerequisites, Statistics 182 and differential equations. (1962-1963 and alternate years.) *Spring.* Hotelling.

197 POPULATION STATISTICS (Sociology 197) (3). Prerequisite, permission of the instructor. *Two lecture and two laboratory hours a week, spring.* Staff.

198 SAMPLE SURVEY THEORY (3). Prerequisite, Statistics 101 or 131. *Spring.* Staff.

Courses for Graduates

For descriptions of the courses listed below see the Graduate School special bulletin on statistics.

202 METHODS OF OPERATIONS RESEARCH (3). Prerequisite, Statistics 135. *Fall.* Nicholson.

204 SELECTED TECHNIQUES OF APPROXIMATION (3). Prerequisite, advanced calculus. (1961-1962 and alternate years.) *Fall.* Hotelling.

210 DESIGN AND ANALYSIS OF EXPERIMENTS (3). Prerequisites, Statistics 102 and 150. *Fall.* Nicholson, Bose.

212 METHODS OF MATHEMATICAL STATISTICS II (3). Prerequisite, advanced calculus. *Spring.* Hall, Smith.

220 THEORY OF ESTIMATION AND HYPOTHESIS TESTING (4). Prerequisites, Statistics 132 and 135. *Fall.* Hoeffding, Hall.

221 SEQUENTIAL ANALYSIS (2). Prerequisites, Statistics 132 and 135. *Fall.* Hoeffding.

222 NONPARAMETRIC INFERENCE (3). Prerequisites, Statistics 132, 135, and 212. *Spring.* Hoeffding.

231 ADVANCED PROBABILITY (3). Prerequisites, Statistics 132 and 212. (1962-1963 and alternate years.) *Fall.* Smith.

232 GENERAL THEORY OF STATISTICAL DECISION (3). Prerequisites, Statistics 135 and 212. (1962-1963 and alternate years.) *Spring.* Hoeffding.

235 STOCHASTIC PROCESSES (3). Prerequisites, Statistics 132 and 212. (1961-1962 and alternate years.) *Spring.* Smith, Hoeffding.

237 TIME SERIES ANALYSIS (3). Prerequisite, Statistics 133. (1962-1963 and alternate years.) *Spring.* Hotelling.

251 COMBINATORIAL PROBLEMS OF THE DESIGN OF EXPERIMENTS (3). Corequisites, Statistics 150 and 210. *Spring.* Bose.

252 INFORMATION THEORY (3). Prerequisite, Statistics 251. *Spring.* Bose.

260 MULTIVARIATE ANALYSIS (3). Prerequisites, Statistics 135 and matrix theory. *Fall.* Roy.

261 ADVANCED MULTIVARIATE ANALYSIS (3). Prerequisite, Statistics 260. *Spring.* Roy.

300 SEMINAR IN STATISTICAL LITERATURE (1 each). Prerequisite, Sta-
301 tistics 135. *Fall and spring.* Staff.

310 SEMINAR IN THEORETICAL STATISTICS (3 each). Prerequisite, Sta-
311 tistics 135. *Fall and spring.* Staff.

321 SPECIAL PROBLEMS (3 each). Prerequisite, Statistics 135. *Fall and*
322 *spring.* Staff.

331 ADVANCED RESEARCH (3 each). Prerequisite, permission of the instruc-
332 tor. *Fall and spring.* Staff.

DEPARTMENT OF ZOOLOGY

Professors: C. E. JENNER, *Chairman*, C. D. BEERS,[1] R. E. COKER,[2] D. P. COSTELLO,[3] W. L. ENGELS, D. G. HUMM, C. S. JONES, H. E. LEHMAN, M. WHITTINGHILL
Assistant Professor: O. H. PARIS
Visiting Assistant Professors: LILLIAN Y. LEHMAN, ELIZABETH A. MCMAHAN
Instructor: D. A. ROSSMAN
Research Associate: CATHERINE HENLEY
Research Assistants: BEATRICE FLEMING, MARY FLEMING, RUTH HAMMETT, IRMA HONIGMANN, JANE HUMM, JUDITH JAMES, MARGUERITE PENNINGTON, MARY J. PRICE, CARL RHODES, RACHEL ROEDER, TIMMIE SYLVIA, JAMES TAYLOR
Teaching Fellow: CAROL KEPLER
Predoctoral Fellows: J. G. ELLER, J. W. GUTKNECHT, W. B. HUBBARD, T. H. TURNEY
Graduate Assistants: DOUGLAS ALEXANDER, CHARLES BOEHMS, GAIL BOTTOMLY, NANCY EDWARDS, MARILYN GILLESPIE, GEORGE HAND, ANN S. HENDERSON, ROBERT KNOWLTON, MARILYN MOTT, CAROL PORCARO, DOROTHY SMITH, GEORGE TAYLOR, JOANNE TONTZ
Alumni Scholar: ANNE B. MCCRARY

NOTE: Students who intend to major in zoology should plan to complete the prerequisite course, Zoology 11, not later than the first semester of the sophomore year and should select Chemistry 11 and 21 as the other two General College sciences.

Majors: For the A.B. in Zoology, at least eighteen upper-division (junior-senior level) courses are required, and these must be distributed as follows:

1. Six to eight courses in zoology, of which at least six must be laboratory courses and which must include Zoology 106 and at least one course from each of the following groups: (a) Zoology 41, 103; (b) Zoology 103, 104; (c) Zoology 111, 120. The remaining courses for the major may be selected freely from zoology courses numbered below 200.

2. Six or seven approved electives in allied departments within the Division of Natural Sciences, which must include Botany 11, two courses in physics (24-25 or equivalent); 8 semester hours in organic chemistry (61-64 or equivalent, which should be taken in the junior year); the remaining courses may be elected freely. *Students entered before September 1, 1962,* may elect any two courses in chemistry numbered 21 or higher.

3. Six or seven approved electives chosen from departments in the College of Arts and Sciences outside the Division of Natural Sciences. The election of French and/or German is strongly recommended if these have not been taken as General College requirements.

1. Professor, Emeritus.
2. Kenan Professor, Emeritus.
3. Kenan Professor.

Honors: Students with strong professional interests in zoological research, and those who plan to study for advanced degrees, are encouraged to apply for admission to the honors program (see page 54) which leads to the A.B. degree in Zoology with *Honors* or *Highest Honors.* Note that candidates for this program in the junior year must secure approval from a departmental faculty honors director and must register for honors with the departmental adviser to undergraduate majors before the registration period for the senior year.

Students who plan to teach in public high schools should read the statement under the "School of Education" in Part III. See there also the requirements for the B.S. degree in Science Teaching, and the courses in Directed Teaching in High School Science and in Materials and Methods in Teaching High School Science.

Special courses and the direction of graduate studies in marine zoology may be offered by members of the staff of the Institute of Fisheries Research upon the recommendation of the Department and the approval of the Administrative Board of the Graduate School. Interested students may consult the departmental adviser concerning this program.

Courses for Undergraduates

(Note: Zoology 11 or its equivalent is prerequisite to all other courses in this department).

11 PRINCIPLES OF GENERAL ZOOLOGY (4). No prerequisite. Open to freshmen. Prerequisite to all other courses in zoology. Principles, problems, and experimental methods of animal biology; basic similarities of all living organisms; organ systems and their physiology; embryology, genetics, organic evolution, ecology; survey of the major animal phyla. *Three lecture and three laboratory hours a week, fall and spring.* Staff; assistants.

41 INTRODUCTORY VERTEBRATE ZOOLOGY (4). Prerequisite, Zoology 11. Fundamentals of vertebrate anatomy, physiology, histology, embryology, classification, and homology. *Three lecture and three laboratory hours a week, fall and spring.* Lillian Y. Lehman, D. A. Rossman; assistants.

78 ANIMAL EVOLUTION (3). Prerequisite, Zoology 11. Organic evolution as the unifying biological concept; historical development; nature of evidence; Darwinian and neo-Darwinian concepts; theories of mechanism. (Not offered in 1962-1963.) *Three lecture and demonstration hours a week, spring.* H. E. Lehman.

99a, 99b COURSE FOR HONORS (1½ each). Prerequisite, approval by staff honors director. Reading, original research, and the preparation of an essay under the direction of a departmental adviser. Required of all candidates for honors in the senior year.

Courses for Graduates and Advanced Undergraduates

100 TOPICS IN CELL BIOLOGY (4). Prerequisite, Zoology 11 or equivalent. Especially designed for secondary school teachers of biology; not open to others except by special permission. Cells and tissues from the standpoints of morphology, metabolism, reproduction, inheritance, growth and development. *Three lecture and three laboratory hours a week, fall or spring.* Jones.

101 TOPICS IN INVERTEBRATE ZOOLOGY (4). Prerequisite, Zoology 11 or equivalent. Especially designed for secondary school teachers of biology; not open to others except by special permission. A consideration of the major invertebrate groups from the comparative morphological, physiological, and phylogenetic viewpoints. *Three lecture and three laboratory hours a week, fall or spring.* Jones.

102 TOPICS IN VERTEBRATE ZOOLOGY (4). Prerequisite, Zoology 11 or equivalent. Especially designed for secondary school teachers of biology; not open to others except by special permission. Comparative anatomical, physiological, evolutionary, and developmental studies of the chordate animals. *Three lecture and three laboratory hours a week, fall or spring.* Jones.

103 COMPARATIVE VERTEBRATE ANATOMY (4). Prerequisite, Zoology 11. Lectures on the structure and evolutionary history of the chief organ systems of vertebrates. Dissections of amphioxus, petromyzon, dogfish head, necturus, and cat. *Two lecture and six laboratory hours a week, fall.* Engels.

104 VERTEBRATE EMBRYOLOGY (4). Prerequisite, Zoology 11. Special study of fertilization, cleavage, germ-layer formation, organogenesis, and extra-embryonic membranes, using frog, chick, and pig. *Two lecture and six laboratory hours a week, fall.* H. E. Lehman.

105 VERTEBRATE HISTOLOGY AND MICROTECHNIQUE (4). Prerequisite, Zoology 11. The preparation of selected tissues and organs for microscopic examination; study of these to acquaint the student with the essentials of histology. *One lecture and six laboratory hours a week, spring.* Costello.

106 GENERAL INVERTEBRATE ZOOLOGY (5). Prerequisite, Zoology 11. The biology of invertebrate animals with special reference to structure, function, classification, and ecology. *Three lecture and six laboratory hours a week, fall and spring.* Jenner, Paris; assistants.

108 GENERAL ECOLOGY (4). Prerequisite, Zoology 11. Principles of descriptive and functional ecology of natural populations and communities. *Three lecture and four laboratory and field hours a week, fall.* Paris.

109 INTRODUCTION TO HYDROBIOLOGY (4). Prerequisites, Zoology 11 and 106. A study of living organisms in the aquatic habitat, with special reference to the relation of animals to their environment—physical, chemical, and biological. *Two lecture and six laboratory and field hours a week, spring.* Jenner.

110 GENERAL PARASITOLOGY (4). Prerequisites, Zoology 11 and 106. A comparative study of structure, life cycles, and classification of parasites of invertebrates and vertebrates and laboratory methods for the collection, culture, and microscope preparation of parasitological materials. (1962-1963 and alternate years.) *Two lecture and four laboratory hours a week, spring.* Hendricks (of the School of Public Health).

111 GENETICS (4). Prerequisite, Zoology 11. The principles of Mendelian heredity, linkage, mutation, population mechanics, and the relation between genes and environment in development. Laboratory experiments with Drosophila and maize. *Two lecture and four laboratory hours a week, spring.* Whittinghill.

112 VERTEBRATE FIELD ZOOLOGY (4). Prerequisite, Zoology 11. An introduction to the natural history of vertebrates. Lectures on selected topics. Laboratory and field exercises on the identification, habits, and local distribution of amphibians, reptiles, birds, mammals. *Two lecture and six laboratory and field hours a week, spring.* Engels.

120 COMPARATIVE PHYSIOLOGY (4). Prerequisites, Zoology 11; Chemistry 61 prerequisite or corequisite. Fundamental chemical and physical principles as applied to living systems; the comparative physiology of movement, respiration, digestion, excretion, and nervous transmission. *Two lecture and six laboratory hours a week, spring.* Humm.

122 HUMAN GENETICS (3). Prerequisite, Zoology 11. A study of biological inheritance in man. Effects of mutation, selection, migration, and racial mixture; applications of genetics to medico-legal questions. *Three lecture hours a week, fall.* Whittinghill.

146 MARINE ECOLOGY (4). Prerequisite, Zoology 11 and 106. An introductory study of oceanography as it pertains to the ecology of marine organisms; consideration of biological productivity and fisheries problems. (1961-1962 and alternate years.) *Three lecture and two laboratory hours a week, and two two-day field trips to the coast, spring.* Jenner, Paris; staff of the Institute of Fisheries Research.

(Zoology majors with a B average who plan to continue study for an advanced degree may be admitted to graduate courses at the 200-level; undergraduate requirements for admission to 200-level courses are given on page 105).

Courses for Graduates

204A (Formerly 118) EXPERIMENTAL VERTEBRATE EMBRYOLOGY (3). Prerequisite, Zoology 104. Survey of problems of vertebrate development relating to nucleocytoplasmic interactions, embryonic determination, organogenesis, differentiation and regeneration. (1961-1962 and alternate years.) *Three lecture and discussion hours a week, spring.* Lehman.

204B EXPERIMENTAL METHODS IN VERTEBRATE EMBRYOLOGY (2). Prerequisites, Zoology 104 and permission of instructor; corequisite, Zoology 204A. Laboratory techniques for parthenogenesis, hybridization, tissue culture, transplantation, chorio-allantoic grafting and other experimental techniques for embryological research. (1961-1962 and alternate years.) *Six laboratory hours a week, spring.* Lehman.

206 ADVANCED INVERTEBRATE ZOOLOGY (4). Prerequisite, Zoology 106. Special topics in invertebrate zoology to be selected for detailed study and to change with each offering. With permission of the instructor, this course may be repeated with credit. (1961-1962 and alternate years.) *Two lecture and four laboratory hours a week, spring.* Jenner, Paris.

208 DYNAMICS OF ANIMAL POPULATIONS (4). Prerequisite, Zoology 108 or equivalent. A study of the population ecology of animals; density, dispersion, age structure, birth rate, death rate, and sex ratio of natural and laboratory populations; population growth and fluctuation; theory of population control; population energetics. (1961-1962 and alternate years.) *Two lecture and six laboratory and field hours a week, spring.* Paris.

209 EXPERIMENTAL INVERTEBRATE EMBRYOLOGY (5 each). Pre-
210 requisite, Zoology 104. The study of fertilization, cell-lineage, differentiation, and regeneration of invertebrates from the experimental viewpoint. (1962-1963 and alternate years.) *Five lecture, seminar, and demonstration hours a week, fall and spring.* Costello.

212 ADVANCED HYDROBIOLOGY (3). Prerequisite, Zoology 109. The study of aquatic organisms and environments, with attention restricted to a particular topic, as a small group of animals, a limited set of habitats, or special phenomena of behavior. (Not offered in 1962-1963.) *Six laboratory and conference hours a week, spring.* Jenner.

213 ADVANCED MARINE ECOLOGY (3). Prerequisites, Zoology 109 and 146; or Zoology 146 and special permission of the instructor. A study of the organisms of coastal waters in relation to their physical, chemical, and biotic environments. (Not offered in 1962-1963.) *Six lecture, seminar, or laboratory hours a week, and one or more field trips to the coast, spring.* Jenner, Paris; staff of the Institute of Fisheries Research.

220 CELLULAR PHYSIOLOGY (4). Prerequisite, Zoology 120. The physicochemical aspects of protoplasm, including permeability, surface tension, pH, cellular metabolism and other measurable properties of living cells. (1961-1962 and alternate years.) *Two lecture and six laboratory and problem hours a week, fall.* Humm.

222 ADVANCED GENETICS (3). Prerequisite, Zoology 111. The effects of chemical agents in the environment upon inheritance. Reports from the literature chiefly upon chemical mutagenesis. Laboratory experiments on the chemical induction of crossing over. (1961-1962 and alternate years.) *Six laboratory and conference hours a week, fall.* Whittinghill.

223 RADIATION GENETICS (3). Prerequisite, Zoology 111. Study of the action upon living cells of irradiation by X-rays, neutrons, infrared, ultraviolet, and other forms of radiation. Crossing over and mutations are emphasized. (1961-1962 and alternate years.) *Three lecture or seminar hours a week, spring.* Whittinghill.

The following seminars will survey the literature, concepts, and theories in their respective fields. In general, graduate students in zoology will register for at least one seminar during each semester of residence. *Each seminar, two discussion hours a week.*

250 SPECIAL SEMINAR (2). Prerequisite, permission of the instructor. Consideration of special topics in zoology. (On occasion.) *Fall or spring.* Visiting staff.

251 SEMINAR IN GENETICS (Biochemistry 251) (2). Prerequisites, Zoology 111 and Biochemistry 220, or permission of the instructors. Offered jointly by the departments of Zoology and Biochemistry. (1962-1963 and alternate years.) *Fall.* Whittinghill, Glassman (Biochemistry).

252 SEMINAR IN GENETICS (Biochemistry 252) (2). Prerequisites, Zoology 111 and Biochemistry 220, or permission of the instructors. Offered jointly by the departments of Zoology and Biochemistry. (1962-1963 and alternate years.) *Spring.* Glassman (Biochemistry), Whittinghill.

253 SEMINAR IN EMBRYOLOGY (2). Prerequisite, Zoology 104. (1962-1963 and alternate years.) *Spring.* Lehman.

254 SEMINAR IN CYTOLOGY (2). Prerequisites, Zoology 105 or permission of the instructor. (1961-1962 and alternate years.) *Fall.* Costello.

255 SEMINAR IN ECOLOGY (2). Prerequisite, Zoology 108. (1962-1963 and alternate years.) *Fall.* Paris, Jenner.

256 SEMINAR IN INVERTEBRATE ZOOLOGY (2). Prerequisite, Zoology 106. (1961-1962 and alternate years.) *Spring.* Jenner, Paris.

257 SEMINAR IN SPECIATION AND SYSTEMATIC ZOOLOGY (2). (1961-1962 and alternate years.) *Spring.* Engels.

258 SEMINAR IN PHYSIOLOGY (2). Prerequisite, Zoology 120. (1962-1963 and alternate years.) *Fall.* Humm.

Courses numbered above 300 require the permission of the instructor and are designed for applicants for advanced degrees. Research may be continued for two or more semesters under the same course number. *Each course six or more laboratory and conference hours a week, fall and spring.*

331 RESEARCH IN INVERTEBRATE ZOOLOGY (3 or more). Jenner, Paris.

332 RESEARCH IN EXPERIMENTAL CYTOLOGY (3 or more). Costello.

333 RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF INVERTEBRATES (3 or more). Costello.

334 RESEARCH IN CELL PHYSIOLOGY (3 or more). Humm.

335 RESEARCH IN HYDROBIOLOGY (3 or more). Jenner.

336 RESEARCH IN VERTEBRATE ZOOLOGY (3 or more). Engels.

337 RESEARCH IN GENETICS (3 or more). Whittinghill.

338 RESEARCH IN PHYSIOLOGY OF LOWER INVERTEBRATES (3 or more). Jones.

339 RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF VERTEBRATES (3 or more). Lehman.

340 RESEARCH IN MARINE ECOLOGY (3 or more). Jenner, Paris.

341 RESEARCH IN GENERAL ECOLOGY (3 or more). Paris.

Part Five

SPECIAL SERVICES AND ORGANIZATIONS

THE UNIVERSITY LIBRARY

JERROLD ORNE, Ph.D., B.S., *University Librarian*
JOHN H. GRIBBIN, Ph.D., M.S. in L.S., *Associate University Librarian*

The University Library contains over 1,077,343 volumes. Including manuscripts, pamphlets, maps, microfacsimiles, recordings, clippings, prints, etc., the count of holdings is 5,014,506 items. Bound periodicals account for 170,000 volumes; and the rate of growth of the library averages about 50,000 volumes a year through purchase, gift, and exchange. Periodical and other serial subscriptions number about 6,000.

The Louis Round Wilson Library building, situated at the south end of Polk Place facing South Building, was erected in 1929 and expanded in 1952 to provide an air-conditioned bookstack containing 511 carrels for faculty and graduate students, additional general reading rooms, faculty studies, and special facilities for rare books, manuscripts, North Caroliniana, maps, documents, the Bull's Head Bookshop, and the School of Library Science. Located on the ground floor are the Manuscripts Department, Southern Historical Collection, Rare Book Room, Photoduplication Service, Bull's Head Bookshop (browsing, rental library, and sale of current books), Interlibrary Loan, Assembly Room, and Map Room. The first floor, entered directly from the front of the building, provides general service through a Reserve Book Room and the Undergraduate Library. The special collection of North Caroliniana is also on this level. The North Carolina Collection is the most complete one of its scope—housed in a beautiful reading room contiguous to the general stack. This room is flanked by the Sir Walter Raleigh Rooms furnished as in 1600, and the Early Carolina Rooms equipped as in 1740. The richness of the North Carolina Collection and its quarters bespeak the generosity of several important donors—John Sprunt Hill, Bruce Cotten, Preston Davie. The Librarian's office is located on the first floor. Exhibition cases on this floor, as well as on the ground and second floors, display special materials or illustrated topics of current interest. The second floor contains the Humanities Division, the Business Administration and Social Sciences Division, and the Technical Processing departments, Acquisitions and

Cataloguing. The Loan Desk and Card Catalogue are also on this level. The third floor houses the School of Library Science (including a department library). There also are forty-five individual studies and numerous conference and seminar rooms.

Special collections of importance include: the Southern Historical Collection (3,486,563 manuscripts); the North Carolina Collection (77,714 volumes and 157,000 other pieces); the Hanes Collection recording the development of the book, including 732 incunabula and some 2,000 manuscripts or other items; the Whitaker collections of Johnson, Dickens, Cruikshank, Thackeray, costume plates, Shakespeare folios; the William Henry Hoyt Collection of French History (Napoleon and his times); the Nolen Collection of city and regional planning; the Chester N. Gould Collection of Scandinavian literature and philology; the Preston Davie Collection of Raleighana, Caroliniana, and Early Americana; the Bruce Cotten collections of North Caroliniana; the Archibald Henderson Collection of Materials Relating to George Bernard Shaw; the Samuel A. Tannenbaum Shakespeare Collection; the Bowman Gray collections on World War I and II; the Burton Emmett Collection of Graphic Arts; the Thomas Wolfe Collection; together with unusual collections of American drama, dramatic manuscripts, Spanish drama, Folklore, Latin American studies, Southern literature, Romance languages, and maps.

The Library, a member of the Association of Research Libraries and the Association of Southeastern Research Libraries, has extensive bibliographical resources, including The North Carolina Union Catalogue. The libraries of the three University campuses, together with the Duke Library, have published union checklists of their holdings in certain broad fields such as science and social sciences. Other checklists are projected. In 1955 an intercampus borrower's card for faculty and selected graduate students was inaugurated. Frequent messenger service, including truck delivery, and a cooperative acquisitions program further cement interlibrary relationships in the region. The Interlibrary Center handles all borrowing and lending services with other libraries and individuals by mail. The Library Photographic Service serves further to meet immediate needs for scarce research material.

Except for libraries of the Division of Health Affairs (Medicine, Public Health, Nursing, Dentistry, Pharmacy) and Law—which are fully accessible to the entire campus—the University Library system is under the centralized administration of the University Librarian. In addition to the rooms and collections already listed in the Louis Round Wilson Library building, the University Library includes the following professional and special libraries: Art, Botany, Chemistry,

Geology-Geography, Mathematics-Physics, Music, and Zoology. Staffed by non-Library personnel are two departmental collections, Institute of Government and Library Science.

THE UNIVERSITY EXTENSION DIVISION

CHARLES FREMONT MILNER, *Director*
DWIGHT CARROLL RHYNE, *Associate Director*

General Statement

"It shall be the duty of the faculty of the University to extend its influence and usefulness as far as possible to the persons of the state who are unable to avail themselves of its advantages as resident students, by extension courses, lectures, and by such other means as may seem to them most effective."—General Statutes of North Carolina, Section 116-15.

Frank Porter Graham defined the purposes of university extension thus: "It is the function of the state university not only to find its bits of truth and teach the truth gathered from scholars everywhere, but to carry the truth to the people that they may take it into their lives and help to make it prevail in world affairs. It is the ideal of the University Extension Division to make the resources of the universities, the discoveries of science, and the findings of the social scientists available for the people of the commonwealth."

Starting as a Bureau of Extension in 1912 under the leadership of Dr. L. R. Wilson, former University Librarian, the idea of University extension was clarified and expanded during the administration of President Edward Kidder Graham. In 1921, in conformity with standards established by the National University Extension Association, the work was organized as a major division of the University by President Harry W. Chase.

The Extension Division is the administrative agency through which the University extends its services to the people. It is the function of the Division to sponsor and develop education services to citizens of the state which the University of North Carolina can provide better than any other public institution of higher learning.

Services of the Division may be broadly categorized as the offering of regular University courses through extension classes, correspondence instruction, and television; non-credit adult education programs and services on the campus and throughout the state; and services to the public schools. Brief descriptions of these services are included in the following statements of the Extension Division Bureaus and the Cooperative University Services.

Bureau of Audio-Visual Education

KENNETH MURCHISON MCINTYRE, *Head*

The audio-visual materials and services of the Bureau of Audio-Visual Education are available to the faculty, students, and adult groups on the campus of the University as well as to public schools, institutions, agencies, and organizations in the state.

An Audio-Visual Materials Laboratory is available to students, faculty, and adult groups for previewing and evaluating 16mm sound educational films, filmstrips, and magnetic tape and disc recordings. These services are available to the faculty for selecting audio-visual materials or to student groups for extra-class viewing and listening.

Graphic arts facilities, sound on film recordings, and transparency production facilities for preparation of specialized teaching materials are available upon request. Duplication of recorded programs on magnetic tape from local and national collections may also be secured.

Consultation and research on the utilization and preparation of audio-visual materials and related media are conducted by the Bureau of Audio-Visual Education. The following kinds of consultant services are available upon request: survey and evaluation of classrooms and recommendations for improving physical facilities for more effective use of audio-visual materials; counseling on specific problems involving design of audio-visual facilities in new buildings and the selection of audio-visual equipment for classroom instruction or special needs; and assistance in developing techniques for using audio-visual materials on television.

Film forums, for adult study groups using audio-visual materials, in the areas of international relations, problems of world peace, music, art, and human relations may be arranged to suit the needs of individual groups.

The Bureau of Audio-Visual Education operates an adult film service in cooperation with the State Library and the North Carolina public libraries. Films for community programs, business and industry, and other adult groups are made available each month through public libraries participating in this project. Detailed information will be furnished anyone interested in this service .

This film rental and tape recording programs are described in the University Extension Bulletin, Vol. XXXIX, No. 2, *Audio-Visual Materials for Schools, Colleges, Churches, and Adult Study Groups.*

Bureau of Class Instruction

SIM OWENBEY WILDE, JR., *Head*

The primary function of the Bureau of Class Instruction is to provide classes for college credit in extension. This function is divided usually into two divisions: the Evening College which meets its

classes on the campus in the evenings; and in-service classes in Education for public school teachers held in the state in various centers.

The Evening College is a comparatively new function of the Extension Division which has met with unusual success in its program. Through the College students may earn as many as thirty semester hours toward an undergraduate degree. All classes are taught by University instructors using University facilities under University regulations. Students not seeking college credit may also enroll on a non-credit basis.

In-service classes in Education are held through the Bureau of Class Instruction in cooperation with the School of Education. These classes are designed to improve professional competencies of public school teachers and administrators, to provide opportunity to work toward an advanced degree, and to renew professional teaching certificates. Two graduate centers are located at Winston-Salem and Charlotte in addition to extension centers from time to time in other cities in the state. Courses in all other departments may be offered to interested groups.

This Bureau also renders a service to various departments on the campus by providing the means for offering courses which do not fit regular University channels. Examples of this are courses for instructors of driver training, National Science Foundation grants for teachers of science, public health nursing courses, and many others.

Bureau of Community Adult Education

NORMAN CORDON, *Head*

The primary purpose of the Bureau of Community Adult Education is to relate the work of the University to programs of adult education sponsored by institutions and organizations in communities throughout the state. Study guides to be developed by members of the faculty will be offered to individuals and local groups. Special programs of continuing education for alumni are planned. The Bureau will cooperate with other institutions and organizations in training discussion leaders.

Local organizations may look to the Bureau for information on various state and national programs of liberal and citizenship education for adults. It will serve as a clearing house for the exchange of ideas and experiences in continuing education. Personnel in the Bureau will experiment with new programs and conduct research in adult education.

Bureau of Conferences and Short Courses

JAMES GORDON STEAGALL, *Head*

The University arranges conferences and short courses for various organizations and groups at Chapel Hill and other North Carolina communities. These consist of intensive training programs of courses ranging in duration from one day to two weeks. The programs include specialized series of lectures, discussions, and demonstration directed by leading speakers and teachers secured from the faculty of the University and from the state and nation.

During the course of each year, from ten to fifteen thousand adults from the state and region take part in these varied adult education projects and conferences. These activities range from North Carolina Symphony Workshops (conducted in several communities in North Carolina), to an evening, non-credit Income Tax Preparation course taught on the University campus. Each of these programs is associated with and academically supervised by the University department directly concerned with the subject matter.

Bureau of Correspondence Instruction

MARY ELIZABETH HENRY, *Head*

The Bureau of Correspondence Instruction makes available by correspondence one hundred twenty-four University courses, written and taught by regular faculty members or qualified specialists approved by the Chancellor. Detailed information concerning these courses is contained in the Catalogue of Correspondence Instruction. Courses are available for those interested in degree credit, teacher's certification credit, professional advancement or personal enjoyment.

The University of North Carolina accepts a maximum of 30 semester hours' credit by correspondence toward an undergraduate degree. No more than two courses may be taken by correspondence from this University during the senior year.

Credit courses by television are made available through the University station WUNC-TV and the Bureau of Correspondence Instruction. These courses are based on correspondence courses or especially prepared syllabi.

Bureau of School Relations

EDGAR RALPH RANKIN, *Head*

The University Extension Division, through this bureau, offers services to the schools primarily through the following activities: (a) state-wide high school debating contests; (b) state-wide high school study and discussion programs dealing with the general subject of building world peace; (c) state-wide high school contests in academic subjects; and (d) the North Carolina Scholastic Press Institute.

The North Carolina High School Debating Union is the medium through which assistance in debating is offered. This organization was established in 1912-1913. Approximately one hundred high schools, represented by four debaters each, discuss some important question annually. The debating teams which win both in the triangular contests and in the district contests come to the University each spring to compete in the final contest for the Aycock Memorial Cup.

The High School World Peace Study and Speaking Program is the agency through which assistance is offered in the study and discussion of topics related to the building of world peace. Approximately two hundred high schools have participated annually since 1946-1947 in the discussion of such subjects as "What Is the Responsibility of the United States in World Affairs?"; "How Can We Help to Build World Peace in the Atomic Age?"; "What Have Been the Achievements and What Are the Prospects of the United Nations?"; "The United Nations—Its Problems and Opportunities"; and "The Role of the United Nations in the Modern World." The speaking contests held in connection with this activity are local in nature in the individual schools.

High school contests in academic subjects are conducted each year in Latin (three divisions), Spanish, French, physics, mathematics, and chemistry. Renewable tuition scholarships in the University are offered under certain conditions to the winning students in these contests. In combined total, 10,763 high school students representing 535 school enrollments participated in the academic contests which were held in 1960-1961. The academic contests are conducted jointly by this bureau and by the several University departments concerned.

Approximately five hundred high school students and faculty advisers come to the University each year for the convention of the North Carolina Scholastic Press Institute. This activity is conducted under the auspices of the University Extension Division, the School of Journalism, *The Daily Tar Heel,* and the North Carolina Department of Public Instruction.

School Tests and Materials Office

LOUISE PENDERGRAFT, *Head*

The better known and most valuable standardized educational tests are collected here for prompt distribution on a non-profit basis to authorized educational agents. Both time and transportation costs may be saved by ordering from this office.

A committee composed of members of the staff of the School of Education serves in an advisory capacity in evaluating new releases and in approving those materials best suited to meet specific needs in different school situations.

Tests may be examined and compared in 204 Abernethy Hall and the staff will gladly assist in helping to work out a well-rounded program. A catalogued listing of the tests and materials may be had by writing to the Office of School Tests and Materials, Box 1050, Chapel Hill, N. C.

COOPERATIVE UNIVERSITY SERVICES[1]

Bureau of Business Services and Research

REX SHELTON WINSLOW, *Head*

Extension of educational resources of the University to business and industry is accomplished by means of cooperative arrangements with the Bureau of Business Services and Research of the School of Business Administration. (See section of catalogue on the School of Business Administration for a description of this agency.) The Extension Division sponsors and services the adult education program for businessmen developed by the bureau.

The most frequent components of this program are "Management Institutes" which are conducted annually in conjunction with trade associations of various lines of business such as bankers, realtors, wholesalers, furniture dealers, etc.

The program also includes conferences and short courses in functional areas of business management such as accounting, personnel, production, and insurance. These are conducted both on and off the campus for the benefit of business firms irrespective of trade lines.

The School of Business Administration has reserved specially equipped rooms and facilities for adult education programs.

The Communication Center

EARL WYNN, *Head*

The Communication Center is a laboratory of the Department of Radio, Television, and Motion Pictures, and offers services to the campus and the state through such divisions as the Radio Division, which includes WUNC (FM); the Motion Picture Division; the Television Division, which includes closed circuit origination, the initiation of dramatic programs on the Chapel Hill campus, and the development of new television services; the Recording Laboratory; and the Photographic Laboratory. Through these and other means it provides an extension of the University. (See Communication Center, p. 302.)

1. Heads of these services are responsible to their respective departments, schools, and divisions.

By means of these communications tools and WUNC-TV, much of the University's vast well of knowledge may be visualized, auralized, and distributed throughout North Carolina, providing a wide educational opportunity for those who wish to learn.

Bureau of Community Drama

JOHN WILLIAM PARKER, *Head*

The services of the Bureau of Community Drama are available to all schools, colleges, and communities throughout the state. Suggestions and advice on play production and direction may be obtained from this bureau.

Assistance is given in organizing, play selecting, the designing and making of scenery, costuming, make-up and lighting. Arrangements may be made for assistance in the direction of a chosen play.

By giving practical assistance to those interested in writing and producing plays, the bureau is seeking to promote and encourage dramatic art in the schools and communities of North Carolina and to stimulate interest in the writing of native drama.

The head of the bureau serves as executive secretary of the Carolina Dramatic Association.

Continuation Education, Division of Health Affairs

HENRY TOOLE CLARKE, JR., M.D., *Head*

In cooperation with the Division of Health Affairs, the Extension Division conducts post-graduate courses in many health disciplines, both on and off the campus. Short refresher courses, workshops, and conferences for physicians, dentists, public health officials, nurses, health educators, dietitians and other professional groups are held each year. Plans are being made for the development of a Pharmacy extension program, in cooperation with the North Carolina Pharmaceutical Association.

Bureau of Educational Research and Service

ARNOLD PERRY, *Head*

The bureau is maintained through the cooperation of the School of Education. The several members of the faculty of the School offer to the state the following services: educational tests and measurements; school surveys; teachers' appointments; advice and counsel with reference to school buildings, equipment, and general administrative problems.

Bureau of English Extension

EARL HORACE HARTSELL, *Head*

In cooperation with the Department of English, the Extension Division conducts professional services for teachers of high school English. The head of the bureau serves as executive secretary of the North Carolina English Teachers Association and as managing editor of its publication, the *North Carolina English Teacher.*

Other services to teachers and students of English provided by the bureau include: (1) professional meetings and conferences; (2) committee activities coordinated by the bureau; and (3) liaison and exchange service with state, regional, and national organizations of English teachers.

Bureau of Recreation

HAROLD DIEDRICH MEYER, *Head*

This bureau offers services in public recreation and leisure problems through the Recreation Curriculum in the Department of Sociology and Anthropology. Bibliographies and reading lists on the subject of recreation in all of its aspects are provided upon request. The bureau head serves as consultant to the North Carolina Recreation Commission.

THE UNIVERSITY NEWS BUREAU

ALFRED GUY IVEY, *Director*
JULIUS JENNINGS WADE, *Director, Sports Publicity Division*
ROBERT H. BARTHOLOMEW, *Public Information Officer, Division of Health Affairs*

The News Bureau is the official information agency of the University.

Its functions are to: (1) seek information about events in the University, (2) consult and advise with faculty members, administrators and others on public information responsibilities, (3) maintain a central repository of information about the University, (4) prepare information obtained by professional and technical specialists in the University and re-write it in terms suitable for use in the mass media of public communication, (5) maintain contact with public news media (newspapers, radio, television, magazines) in making known to the public the activities, policies, goals, and accomplishments of the University and the people associated with it, and (6) perform certain functions related to specific University publications.

An important facet of the News Bureau operation is the principle that no censorship is exercised. The University adheres to the public policy of "free access to information." Faculty members, administra-

tors, and others are urged to cooperate with representatives of news media, through the News Bureau or directly, in answering questions relating to activities in the University. The frank and uncensored access to the facts—whether or not they are favorable to the University—gives confidence in the forthright public relations policy of the University. In brief, the information program operates on the premise that it has an obligation to mirror the life of the University community in perspective, and that it is also good public relations procedure to follow that policy.

This stated policy is limited only by the necessity at times to protect individual human rights, as in the case of preserving a student's anonymity in a matter involving the honor code, or not releasing, against their will, information about patients in the N. C. Memorial Hospital. The policy is likewise limited in matters affecting national security or professional ethics.

The University News Bureau also engages in special promotional efforts to emphasize the achievements of the institution, its faculty, and its programs. This is done by writing news stories, feature articles, radio-television scripts, and sending out photographs to show the work of the University.

In addition, the News Bureau is the agency which handles the distribution of sports information, a self-supporting program sponsored by the University Athletic Association.

THE UNIVERSITY OF NORTH CAROLINA PRESS

Lambert Davis, *Director*
Porter Cowles, *Assistant Director*

The University of North Carolina Press was incorporated on June 12, 1922. The objects for which it was established are (1) to publish periodicals devoted to the advancement of learning and produced at the University by or under the direction of the faculty; (2) to publish catalogues, bulletins, and other documents pertaining to the University and its various schools and departments; and (3) to promote generally, by publishing deserving works, the advancement of the arts and sciences and the development of literature.

The Press was established under the authority of the Board of Trustees of the University. It is a non-stock corporation, organized under the laws of North Carolina, whose policies are determined by a Board of Governors appointed by the Board of Trustees and acting under the authority of the Chancellor and the President.

The Press has published approximately twenty-five books per annum during recent years. The Press also publishes the following periodicals: *The Journal of the Elisha Mitchell Scientific Society;*

Studies in Philology; The High School Journal; Social Forces; The North Carolina Law Review; The University of North Carolina Extension Bulletin; The Library Extension Publication; The University of North Carolina News Letter; The University of North Carolina Record; and the following departmental series: *The James Sprunt Studies in History and Political Science; Studies in Romance Languages and Literature; Studies in Germanic Languages and Literature; Studies in Comparative Literature;* and *Studies in Business Administration.*

The Press offices are located in Bynum Hall. The following agents represent the Press outside the United States: W. S. Hall and Company, Continental Europe; Oxford University Press, books in the British Isles, India, and Pakistan; Cambridge University Press, periodicals in the British Isles; Henry M. Snyder and Company, worldwide representative, except in territories otherwise served; the Ryerson Press, Canada.

A complete list of publications issued by the Press, and seasonal catalogues of new publications, will be supplied without charge to any address on request.

THE UNIVERSITY TESTING SERVICE

WILLIAM DECATUR PERRY, *Director*
JAMES W. LITTLE, *Associate Director*
PHINNEY CAMPBELL, *Administrative Assistant*
EARL J. SPENCE, *Vocational Counselor*
MILDRED F. WOODWARD, *Chief Psychometrist*
ELIZABETH M. HENDERSON, HARRIET D. MCMILLAN, *Psychometrists*
MARTHA T. FRIEDRICH, *Secretary*
BOBBY G. TATE, HENRY W. NEEDHAM, *Personnel Interns*

The University Testing Service was established in 1937 primarily for the purpose of administering and scoring tests and for test research. Its activities were greatly expanded beginning in 1945, as the result of a contract with the Veterans Administration to provide vocational guidance for veterans. Since that time, more than 10,000 veterans, many of them partially disabled, have been tested and counseled. As the result of a decision by the University to extend these same services without charge to students, vocational counseling of University students has become one of the major functions of the University Testing Service. More than 4,000 University students have received a comprehensive battery of tests and a series of interviews with vocational counselors on the Testing Service staff. The vocational guidance program for students has been especially designed to be of maximum assistance to those students who have been unable to select a suitable academic major, who are uncertain about their vocational choice, or who are encountering academic difficulties.

In addition to test scoring and test research work, which have been carried on since 1937 and have been facilitated by the use of an I.B.M. scoring machine, the University Testing Service has engaged in several closely related activities. A cross indexed occupational information library is maintained for the use of University students who wish to acquire detailed information regarding job requirements, duties, rates of pay, training courses, and employment outlook. The University Testing Service is an approved agency for the administration of ten national testing programs and participates in testing projects sponsored by other universities and colleges and by such organizations as the State Department of Public Instruction, and the U. S. Office of Education.

The University Testing Service cooperates with and assists schools and departments of the University in administering, scoring, and interpreting tests; arranging for specialized testing programs; compiling and analyzing test data; and reporting the results of testing and counseling for students who request it after completing the vocational guidance program.

Reading Program

Phinney Campbell, *Director*
Warren H. Burgess, Grace R. James, Edward L. Lentz, Walter R. Parker, Jr., Ann M. Trabue, *Reading Instructors*

The Reading Program offers a non-credit course in the improvement of reading and studying efficiency, open to any student interested in improving these skills. Application can be made at any time during the regular academic year at the Reading Program Office, Room 106, Peabody Hall. The course begins with individual diagnosis of reading and study habits and continues until each student reaches the desired level of improvement, some attending for a minimum of ten weeks and others remaining one or more semesters. The course is essentially laboratory in nature with each individual concentrating on those reading or studying skills he wants or needs to improve. The Reading Program cooperates with schools and departments of the University in administering, scoring, and interpreting diagnostic reading tests. The staff is also available to help students who have specific problems in reading and studying and who are unable to enroll in the regular program.

INSTITUTE OF GOVERNMENT

ALBERT COATES, *Director*

CLYDE LOWELL BALL, MARION WILSON BENFIELD, JR., VERNON LELAND BOUNDS, ROBERT GRAY BYRD, GEORGE HYNDMAN ESSER, JR., NEAL MILLS FORNEY, JR., PHILIP PALMER GREEN, JR., ROY GRIFFITH HALL, JR., DONALD BALES HAYMAN, MILTON SYDNEY HEATH, JR., CHARLES EDWIN HINSDALE, HENRY WILKINS LEWIS, RODDEY MILLER LIGON, JR., ALLAN WHITLOCK MARKHAM, ELMER ROSENTHAL OETTINGER, JR., JOHN LASSITER SANDERS, DAVID NATHAN SMITH, ROBERT EDWIN STIPE, LEWIS POINDEXTER WATTS, JR., WARREN JAKE WICKER, *Assistant Directors*

RUTH LOWENS MACE, JOHN PERRY POWELL, THOMAS M. TULL, JR., *Research Associates*

OLGA M. PALOTAI, *Librarian*

The Institute of Government grew out of the classroom of a professor in the University of North Carolina in the 1920's. It developed into a program of action supported by city, county, state, and federal officials in North Carolina during the 1930's. It became an integral part of the structure of the greater University of North Carolina in January 1942.

The Institute of Government unites public officials, private citizens, and students and teachers of civics and government in a systematic effort to meet definite and practical needs in North Carolina.

(1) It seeks to coordinate the efforts and activities of city, county, state, and federal officials who have been working for one hundred and fifty years on the same problems, for the same people, in the same territory, in overlapping governmental units, without coming together in systematic and continued cooperative activity—in the effort to eliminate needless duplication, friction, and waste.

(2) It seeks to bridge the gap between outgoing and incoming public officials at the end of their two- or four-year terms by organizing and transmitting our steadily accumulating governmental experience to successive generations of public officials—in the effort to cut down the lost time, lost motion, and lost money involved in a rotating governmental personnel.

(3) It seeks to collect and correlate for each group of public officials the laws governing their powers and duties now scattered through a multiplicity of books to the point of practical inaccessibility in constitutional provisions, legislative enactments (including public-local and private laws), municipal ordinances, and court decisions—in the effort to make them conveniently available for practical use.

(4) It seeks to collect and compare the different methods of doing similar things arising out of the initiative and resourcefulness of officials in a hundred county courthouses, four hundred city halls, and scores of state departments and federal agencies—in the effort to raise the standards of governmental performance by lifting the poorest practices to the level of the best.

(5) It seeks to bridge the gap between government as it is taught in schools and as it is practiced in city halls, county courthouses, state departments, and federal agencies.

(6) It seeks to provide the machinery for putting the people in touch with their government and keeping them in touch with it.

(7) It seeks to build a demonstration laboratory and clearinghouse of governmental information to which successive generations of officials, citizens, and students and teachers of government may go to see demonstrated in one place the methods and practices in government they would now have to go to one hundred counties, about four hundred cities and towns, and a score or more of state departments to find—and would not find practically available for use when they had reached these sources.

The Institute of Government is working with officials and citizens and the schools to achieve the foregoing objectives through comparative studies of the structure and workings of government in the cities, counties, and state of North Carolina, by staff members going from one city hall, county courthouse, state department, and federal agency to another, collecting, comparing, and classifying the laws and practices in books and in action. It is setting forth the results of these studies in guidebooks, demonstrating them in laboratories, teaching them in training schools, keeping them up to date, and transmitting them through a clearinghouse of governmental information for officials, citizens, and teachers of civics and government in the schools.

The Department of Political Science and the Institute of Government

The Department of Political Science and the Institute of Government are cooperating in a program through which the Department of Political Science and its students will receive the benefit of the specialized experience of the Institute of Government and its staff. From time to time, as Lecturers in Political Science, they will teach particular courses and conduct seminars within the field of their particular competence, under the rules and regulations of the Graduate School.

The Department of Political Science believes that this marks a significant development which will contribute much to the training of its students for civic leadership and public service as well as for professional competence.

Other Departments and the Institute of Government

In a similar fashion, members of the Institute of Government staff are teaching courses in which they have special competence in other departments of the University—in the Department of City and Regional Planning, in the School of Social Work, and in the Division of Health Affairs.

THE COMMUNICATION CENTER

EARL WYNN, *Director*
ROSS E. SCROGGS, JR., *Associate Director; Director of Photography and of Motion Pictures*
JOHN S. CLAYTON, *Director of Production*
JOHN EHLE, *Director of Writing*
ROBERT L. HILLIARD, *Director of Radio and of Closed Circuit Television*
MACK PRESLAR, *Director of Operations*
JOHN E. YOUNG, *Consultant*
WESLEY H. WALLACE, *Project Director*

The Communication Center is administered by the faculty of the Department of Radio, Television, and Motion Pictures. It functions as a production and research laboratory of the Department and offers services in radio, television, motion pictures, and photography to the campus and the state.

Radio Division

Since 1946 a production laboratory has been operated by the Department as a teaching and service function. It has originated numerous programs for the National Association of Education Broadcasters radio network, for the National Broadcasting Company, and for other commercial networks and stations.

Since 1952, a non-commercial educational radio station, WUNC (FM), licensed by the Federal Communications Commission to the University of North Carolina at Chapel Hill, has been operated as a training and service agency. The staff is composed of students participating under faculty supervision. In addition to programs originating in Chapel Hill, the station broadcasts features of the British Broadcasting Corporation, the French Broadcasting System, and other United States and foreign production agencies.

Television Division

In 1960 a television laboratory was formed for purposes of student instruction, program experimentation and development, and research. The laboratory is responsible for the planning of new television services in Chapel Hill, for television drama originating from the Chapel Hill campus, and for closed circuit television. The staff also experiments with and does research in various types of programs with intent to contribute to the field of television and the training of advanced television students.

WUNC-TV, the Channel 4 educational television station, is licensed to the consolidated University of North Carolina. For detailed information see Television Station WUNC-TV.

Motion Picture Division

As a teaching and service agency, the Department operates a sound stage, control room, and cutting rooms for motion picture production, instruction, research and experimentation. As of now, lights, cameras and editing equipment are for 16 mm. work. Films are produced to serve educational purposes and to train advanced motion picture students.

Photographic Laboratory

The only unit of the Communication Center which is not operated as a laboratory function of the Department, the Photographic Laboratory represents a complimentary medium of communication and often functions as a training laboratory for students in photography in the University. The laboratory serves the ever increasing and complex photography needs of departments and divisions of the University.

Recording Laboratory

The studios of the Department are equipped to record on tape or disc, or to make transfers from tape, disc, or film, including synchronous tracks for films.

Studio services are frequently supplied, chiefly to educational units and to students and faculty members.

Research

Research in the mass media is carried on through the cooperative efforts of production experts and social scientists.

THE DEPARTMENT OF ATHLETICS

Administration

CHARLES PERRY ERICKSON, *Director*
WALTER WAGNER RABB, *Assistant Director*
JOSEPH TRUMAN HILTON, *Freshman Director*
VERNON BALDWIN CROOK, *Business Manager*
ERNEST WARRINER WILLIAMSON, *Executive Secretary of Educational Foundation*
JULIUS JENNINGS WADE, *Director of Sports Publicity*

Coaching Staff

JAMES BENTON HICKEY, *Head Football Coach*
MARVIN EMMETT CHEEK, JOSEPH J. C. MARK, FRED TULLAI, JR., VITO EUPOLLIO RAGAZZO, ROBERT JOSEPH THALMAN, LEON HALDEN CARSON, ERNEST WARRINER WILLIAMSON, *Assistant Football Coaches*
GEORGE THOMAS BARCLAY, *Freshman Football Coach*
JOHN JENKINS SCHROEDER, WADE MARVIN SMITH, *Assistant Freshman Football Coaches*
DEAN EDWARDS SMITH, *Head Basketball Coach*
KENNETH WALKER ROSEMOND, *Freshman Basketball Coach*

ERNEST MARVIN ALLEN, JR., *Head Soccer Coach*
HOWARD ARTHUR LEMERY, *Freshman Soccer Coach*
SAMUEL GILL BARNES, *Head Wrestling Coach*
GROVER CLEVELAND WILHOIT, JR., *Freshman Wrestling Coach*
PATRICK FRANCIS EAREY, *Head Swimming Coach*
RICHARD ELMER JAMERSON, *Freshman Swimming Coach*
MURPHY DALE RANSON, *Head Track Coach*
JOSEPH TRUMAN HILTON, *Assistant Track Coach*
EDWARD MARTIN KENNEY, *Head Golf Coach*
DONALD EDMUND SKAKLE, *Head Tennis Coach*
THOMAS HENRY CRAIS, *Freshman Tennis Coach*
WALTER WAGNER RABB, *Head Baseball Coach*
ARTHUR BRUCE CRUMP, *Freshman Baseball Coach*
JOHN E. LACEY, *Head Trainer*
WARREN GENE MORRIS, *Assistant Trainer*
MICHAEL Z. RONMAN, *Staff Photographer*

The University of North Carolina Department of Athletics has consistently sought to conduct a sound and comprehensive program of sports to meet the varied needs of the student body. Superior facilities and equipment are provided for the operation of intercollegiate competition in a program of ten varsity sports and ten freshman sports. In addition, two sports are co-sponsored with the Department of Physical Education on a club basis. A dedicated, experienced, and well-trained permanent staff of coaches provides the instruction and leadership in a program which annually produces high ranking teams.

The major portion of each schedule consists of contests within the Atlantic Coast Conference. Additional contests are arranged annually with institutions of comparable rank and standards from other sections of the country.

The intercollegiate program operates under the regulations of the University, the Atlantic Coast Conference, and the National Collegiate Athletic Association.

The administration and the faculty endorse and sanction intercollegiate athletics as an extracurricular activity with many positive outcomes for the student body and the University. In addition, it provides a strong and enduring bond between the University and its alumni.

In view of this, constant attention and effort are directed toward providing a broader and more efficient program for the participation of the student body and the enjoyment and entertainment of the faculty and alumni.

CULTURAL AGENCIES AND CENTERS

ESTABLISHED LECTURES

BERNARD H. BOYD, *Chairman*

The John Calvin McNair Lectures

This lectureship on the relationship of science and theology was founded through a bequest by the Reverend John Calvin McNair of the Class of 1849. The series was inaugurated in 1908 by Francis H. Smith, the first in a line of eminent thinkers which has included Henry Van Dyke, Arthur Twining Hadley, John Dewey, Roscoe Pound, William Louis Poteat, Harris Elliott Kirk, Robert Andrews Millikan, George F. Thomas, Arthur H. Compton, Kirtley F. Mather, William Ernest Hocking, Edmund W. Sinnott, Charles A. Coulson, and Robert Oppenheimer.

The Weil Lectures

An unendowed lectureship on American citizenship was established by the University during the year 1914-1915. The families of Sol Weil and Henry Weil of Goldsboro later generously endowed the lectures as an annual series called the Weil Lectures on American Citizenship.

William Howard Taft delivered the first lectures. A group of distinguished world citizens has followed him, including William Bennett Munroe, Edward A. Ross, William Allen White, Charles A. Beard, Harold J. Laski, Felix Frankfurter, and Henry Wallace. Among the more recent speakers have been T. V. Smith, Richard B. Tawney, Robert M. MacIver, Eleanor Roosevelt, Edwin G. Nourse, Robert A. Taft, Zechariah Chafee, Jr., Galo Plaza, Carlos P. Romulo, D. W. Brogan, Barnaby Keeney, and Christian H. Herter.

The Alumni Lectures

The Alumni Annual Giving Foundation makes regular contributions to a fund to be used by the several divisions of the University to invite outstanding lecturers to the campus. Departments desiring the use of these funds are requested to contact the Chairman of the Committee on Established Lectures.

THE CAROLINA PLAYMAKERS

HARRY ELLERBEE DAVIS, *Director*
JOHN WILLIAM PARKER, *Associate Director and Business Manager*
TOMMY REZZUTO, JR., *Scene Designer and Technical Director*
IRENE SMART RAINS, *Costume Director*
FOSTER FITZ-SIMONS, RUSSELL GRAVES, KAI JURGENSEN, THOMAS M. PATTERSON, *Staff Directors*
ROBERT B. SHARPE, *Literary Adviser*

The Carolina Playmakers were founded in 1918 by Frederick H. Koch, and under his leadership achieved national recognition for promotion of native playwriting, particularly regional and folk drama.

Today the Playmakers serve two main purposes: (1) to provide a practical theatre laboratory for the students in the Department of Dramatic Art, established in 1936; and (2) to provide a Community Theatre Program for Chapel Hill and for the campus. Membership in the Playmakers is open to any student in the University, and to any citizen of the community. Acting roles are assigned by open competitive tryouts, and technical and managerial positions are filled by personal interview.

The Playmakers Theatre, one of the oldest buildings on the campus, was remodelled for its present purpose in 1925, and was the first permanent home provided by the state for any of the fine arts. Most of the Playmaker productions are presented in this charming small theatre, but occasional use is made of Memorial Hall for larger productions. The Koch Memorial Forest Theatre, in Battle Park, is used for the final production each spring, and for summer productions. The production program each year includes five major productions, one of which is usually a new long play, three or four bills of original one-act plays, and two summer productions.

The Playmakers are closely associated with the state-wide Carolina Dramatic Association, and serve as hosts for its annual Spring Festival. They are also affiliated with the Southeastern Theatre Conference, the American Educational Theatre Association, the American National Theatre and Academy (ANTA), and the National Theatre Conference.

An annual Playmaker Mask Award is presented to members who have achieved a required number of activity points. For exceptional achievement over a longer period of time two special awards, the Master Award, and the Alumnal Award, are occasionally given. Three playwriting awards, the Roland Holt Cup, the Joseph Feldman Award, and the Koch Memorial Scholarship, are available to students.

THE MOREHEAD PLANETARIUM

ANTHONY FRANCIS JENZANO, *Director*

Gift of John Motley Morehead, Class of 1891, the building contains the Genevieve B. Morehead Memorial Rotunda, Faculty Lounge, University Room, and a dining room for official functions of the University. Among the paintings from the Morehead Collection permanently hung in the Rotunda are Rembrandt's portrait of his sister and many valuable works by other masters. Two large art galleries flanking the Rotunda are used for temporary exhibitions.

The scientific portion of the building contains the sixth Zeiss Planetarium installation of the Western Hemisphere, the first one in the world to be owned and operated by a university and the first one in the United States to be modernized with post-World War II improvements. A realistic reproduction of the sky of thousands of years past or hence as seen from any position on earth is produced on the sixty-eight-foot perforated stainless steel dome of the chamber which seats 470 visitors in concentric circular rows. Spectacular productions given since opening on May 10, 1949, have included "Star of Bethlehem," "Worlds That Have Vanished," "Easter, the Awakening," and many planetary "Space Trips." Public demonstrations are given every evening in the week at 8:30; on Saturdays at 11:00 and 3:00; Sundays at 3:00 and 4:00. Special presentations for school children are offered on Wednesdays, Thursdays, and Fridays at 11:00 A.M., 1:00 P.M., and 4:00 P.M. A different program is presented each four or five weeks. The Planetarium is used also for University classes in astronomy and navigation. Special training for the seven United States Mercury Astronauts was given in 1960-1961. Special research in Bird Orientation was conducted by Duke University scientists in the Planetarium in 1961-1962.

Associated with the Planetarium are scientific exhibit areas and a thirty-five-foot orrery of the solar system. In the first eleven years of operation, 1,000,000 visitors attended the Planetarium presentations.

In the Planetarium garden, twenty-five varieties of roses and many other flowers and shrubs form a beautiful setting for the modern example of that most ancient of astronomical instruments, the Sundial.

The giant Sundial is another gift to the people of North Carolina from John Motley Morehead—University alumnus, industrialist, philanthropist, and founder of the scholarships that bear his name.

THE WILLIAM HAYES ACKLAND MEMORIAL ART CENTER

JOSEPH CURTIS SLOANE, *Director*
MAY DAVIS HILL, *Librarian and Curator of Prints*

Dedicated on September 20, 1958, The William Hayes Ackland Memorial Art Center fulfills a long-standing need for the consolidation and expansion of art study and exhibition facilities. The late Mr. Ackland's bequest has provided accommodation for the Department of Art and galleries to house temporary exhibitions as well as a growing permanent collection. The Center also contains the Joseph Palmer Knapp rooms of antique furniture and decorative arts.

The art library and other study and research areas adjoin the lecture room and staff offices. Drawing, painting, design, sculpture, and ceramics facilities are located in the several studio classrooms.

In addition to the Center's collection of paintings, drawings, prints, furniture and other works of art, the Department of Art maintains a study collection of slides, photographs, and color reproductions.

The department sponsors a public evening sketch class each semester.

THE FOLKLORE COUNCIL

ARTHUR PALMER HUDSON, *Chairman*
ISAAC GARFIELD GREER, *Vice-Chairman*
MANLY WADE WELLMAN, *Secretary*

The Folklore Council was organized in September 1935, to promote the cooperation and coordination of all those interested in folklore and to encourage the collecting and preserving, the study and interpretation, the active perpetuation and dissemination of all phases of folklore. Folklore is defined by the Council as embracing all cultural aspects of folk life.

The Council represents a reorganization of The Institute of Folk Music, which was started in September 1931, and which now becomes a division of the Council. It was found that there was a need for a comprehensive organization to unify and stimulate membership of the former Institute of Folk Music.

THE INSTITUTE OF FOLK MUSIC

WILTON MASON, *Director*

FUNCTIONS OF THE INSTITUTE

As defined by the Council, folklore embraces all cultural aspects of folk life. In all lands the latter is closely allied to, and interwoven with, music in its various manifestations: as song, dance, or religious worship.

The Institute of Folk Music has varied, though related, aims:

1. The collection and preservation of indigenous materials, as found in the various regions of the state.

2. The perpetuation of traditional songs, dances, and hymns through teaching traditional music in the schools and communities, as well as organizing county folk festivals and "old-time-music" conventions.

3. The scientific study, analysis, and interpretation of all the collected material.

4. The furtherance of composition based on folk music.

The Department of Music collaborates in the accomplishment of these ends, not only indirectly through its instruction in theoretical and applied music, but more particularly through courses in ethno-

musicology which are designed for the training of workers in this field. To further these studies, the Department of Music has in addition to a rather comprehensive collection of books on folk music, a representative library of recorded folksongs from the various sections of the United States, including those of American Indian tribes. Besides all these there are songs and ballads of the most important European countries, as well as the comprehensive collection of Ethnic music of Africa, Asia, and the Pacific Isles, recently issued by Columbia Recording Company.

RESEARCH INSTITUTES

INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE

DANIEL O'HAVER PRICE, *Director*
RUTH ELIZABETH SEARLES, *Assistant Director*

Research Staff

Research Professors: LOWELL DEWITT ASHBY, EMMETT EARL BAUGHMAN, CHARLES EMERT BOWERMAN, FRANCIS STUART CHAPIN, JR., FREDERIC NEILL CLEAVELAND, FEDERICO GUILLERMO GIL, FLETCHER MELVIN GREEN, HARRIET LAURA HERRING, SAMUEL HUNTINGTON HOBBS, JR., JOHN JOSEPH HONIGMANN, KATHARINE JOCHER, GUY BENTON JOHNSON, HAROLD GRIER MCCURDY, GEORGE EDWARD NICHOLSON, JR., EDWARD WILLIAM NOLAND, JOHN ALBERT PARKER, DANIEL O'HAVER PRICE, JAMES WARREN PROTHRO, GEORGE LEE SIMPSON, JR., HARVEY LISS SMITH, JOHN WALTER THIBAUT, RUPERT BAYLISS VANCE

Research Associates: JOHN BERRY ADAMS, MARGARET ELAINE BURGESS, ERNEST QUEENER CAMPBELL, MILES RICHARD CRAMER, HARRY JENNINGS CROCKET, JR., WILLIAM GRANT DAHLSTROM, WAYNE ALLEN DANIELSON, CHARLES JAMES ERASMUS, RASHI FEIN, JOHN GULICK, ALBERT CORBIN HIGGINS, JAMES CARLTON INGRAM, DONALD PAUL IRISH, LEWIS LEVINE, DONALD ROWE MATTHEWS, JAMES JOSEPH MULLEN, WILLIAM NELSON PARKER, HALLOWELL POPE, HALBERT BENEFIEL ROBINSON, ROBERT ARTHUR RUPEN, RUTH ELIZABETH SEARLES, RICHARD LEE SIMPSON, JEAN HARMON THRASHER, SHIRLEY FRIEDLANDER WEISS, GEORGE SCHLAGER WELSH

Research Affiliate: RALPH WILLIAM PFOUTS

Consultant in Psychiatry: GEORGE CAVERNO HAM

The Institute for Research in Social Science was established in 1924 by Howard W. Odum to promote and facilitate social science research at the University of North Carolina. In performing this function, it has encouraged the expansion and intensification of focus and method in social science investigation, has served as a center for the development of research personnel, and has cooperated with other agencies in working out procedures for increasing the utilization of social science research.

The Institute's organizational position in relation to the central administration of the University is similar to that of a school or major division. The director serves as administrator and executive head of the Institute. An administrative board representing social science de-

partments, relevant professional schools, and the University administration establishes basic policies for the Institute. An advisory committee determines the general scope and emphases of the research program, approves applications for membership in the senior professional staff, and approves requests for research grants and contracts.

The senior staff of the Institute, now approximately 50 in number, are generally faculty members receiving salaries through their academic departments but being granted a reduced teaching load by their departments so that they can carry on research. New members of the senior staff are usually appointed for a limited period of time by the advisory committee on the basis of their written statements about the scientific problem they wish to examine and the means of investigation they propose. The breadth of the staff's research interests is suggested by the departmental affiliations: anthropology, business administration, city and regional planning, economics, history, journalism, political science, social and clinical psychology, social work, and sociology.

The junior staff of the Institute, numbering over 50 at this time, is made up of graduate students who have been granted research assistantships, fellowships, and traineeships on the basis of their academic performance and promise and the availability of research projects on which they could receive experience relevant to their graduate training. *Research assistants* work under the guidance of a member of the senior staff and assist him in his research. *Research fellows* are mature graduate students equipped by training and experience to carry on research, usually with some faculty consultation and direction. *Mental health trainees* are advanced graduate students who receive academic training and research experience in the analysis of social aspects of mental health and the health professions. At times the research of graduate students is developed into theses, dissertations, monographs, and articles for professional journals.

Just as representation from different academic disciplines is broad, so the content and methods of research are varied. There are organized Institute programs in urban studies, organization research, political behavior, and health which provide a flexible framework for the coordination and cumulation of much research. Projects need not fit under these rubrics, however, since many individual projects are also supported. Techniques of data collection used in the various studies include library research, controlled experiments, content analysis, participant observation, questionnaires, and depth interviews. To keep Institute staff members and other interested persons informed about research plans and developments, a report, *Research Previews,* is issued several times each year. Research documents are published as books, monographs, or articles.

The Institute for Research in Social Science has a Small Group Laboratory for the observation of groups in action and a Statistical Laboratory for the processing and statistical analysis of data. The central office of the Institute provides secretarial and clerical services to members of the staff, as well as handling certain administrative details, and the editing and preparation of research manuscripts. Apart from regular salaries paid to faculty members through the academic departments in which they hold appointments, the Institute's work is financed by allocations from the University of North Carolina, contracts with government agencies, and grants from foundations and other organizations interested in supporting social science research.

Additional information and application blanks for research assistantships and traineeships may be obtained by writing to the chairman of the academic department in which the student wants to pursue graduate study.

THE INSTITUTE OF FISHERIES RESEARCH

ALPHONSE F. CHESTNUT, *Director*

Research Staff

Director and Professor: ALPHONSE F. CHESTNUT
Associate Professors: WILLIAM EARL FAHY, AUSTIN BEATTY WILLIAMS
Instructor: HUGH JUDSON PORTER
Consultants: ROBERT ERVIN COKER, HARDEN FRANKLIN TAYLOR
Research Affiliates: EARL EDWARD DEUBLER, JR., GERALD S. POSNER

The Institute of Fisheries Research was established by action of the Board of Trustees September 29, 1947. Its inauguration was made possible by a four-year grant from the Knapp Foundation, Inc., of New York conditioned on matching contributions from the state. The grant from the Knapp Foundation was "A tribute to Joseph P. Knapp's lifelong interest in the betterment of mankind." With the cooperation of the Department of Conservation and Development a building at Morehead City was made available for a research laboratory.

The relation of the Institute to the central administration of the University is similar to that of other departments of the University. An Executive Committee composed of four representatives from the University and two from the Board of Conservation and Development determines basic policies. Local administrative details are delegated to the Director and research staff at the Institute.

The purpose of the Institute is to endeavor, through scientific research, to arrive at a better understanding of the complex problems of marine science. Basic knowledge is needed concerning our natural resources in order to formulate principles that govern the application

of conservation and management procedures for efficient utilization of the resources. This requires long-term studies of the physical, chemical and biological conditions and their influence upon life histories and behavior of various species of marine and estuarine organisms. Facts are needed, rather than casual theories or biased deductive reasoning, in formulation of regulations and legislation. Thus, within the limits of its staff and facilities the Institute serves the needs of the Department of Conservation and Development and the state in respect to immediate practical problems that arise.

Facilities of the Institute are made available to faculty and students of the University with research interests in marine biology, physical and chemical oceanography and related fields. The Institute staff contributes to the educational program of the University through lectures, seminars, and guidance of graduate students.

The major function of the Institute is research. Other important functions are to supplement the specialized training of graduate students in areas of marine biology and physical and chemical oceanography; to serve as a clearing house for scientific and other information needed in the management of marine resources; to cooperate in studies of socio-economic aspects of fisheries with the Department of Conservation and Development and with the Bureau of Business Services and Research in the School of Business Administration; and in general to serve the state as an agency for scientific research.

Upon recommendation of an academic department of the University and approval of the Administrative Board of the Graduate School, special courses and direction of graduate studies may be offered by members of the Institute staff. Courses in hydrobiology and marine ecology are described in Part IV of this catalogue under Department of Zoology.

INSTITUTE OF LATIN AMERICAN STUDIES

FEDERICO GUILLERMO GIL, *Director,* DAVID G. BASILE, HAROLD A. BIERCK, FRANK M. DUFFEY, CHARLES H. ERASMUS, MABEL B. JONES, STURGIS E. LEAVITT, LOREN C. MACKINNEY, WILLIAM WHATLEY PIERSON, LAWRENCE A. SHARPE

Major functions of the Institute of Latin American Studies are: (1) to encourage and stimulate research in Latin American studies at the University; (2) to serve as an agency to provide means for cross fertilization among researchers from different disciplines, and when possible and desirable, for the synthesis of diverse personal and departmental interests in research; (3) to promote the exchange of scholars and students, and the establishment of close working relationships with institutions of higher learning in Latin America; (4) to serve as an agency to undertake under contract surveys or analytical studies in Latin America.

Another major activity concerns undergraduate and graduate training in the area of Latin American studies. The Institute brings together the courses relating to Latin America offered in various departments of the University. It offers an undergraduate major, which is in effect also a major in one of the recognized departments. The Institute also offers programs in Latin American Studies for the master's degree (see statement in the offerings of the Department of Political Science, in Part IV).

The undergraduate program of courses is intended to provide a basis for graduate work in Spanish, history, or political science. It will be of significant value to students who wish to enter the Foreign Service of the United States or to engage in Latin American trade.

In the Latin American field the University of North Carolina has a rich collection of books, many of which were secured through grants from the Rockefeller Foundation and the Carnegie Corporation. A considerable amount of recording equipment has been secured for intensive language instruction in Spanish and Portuguese.

INSTITUTE OF NATURAL SCIENCE

CÉCILE M. DEWITT, *Director*
EVERETT D. PALMATIER, *Associate Director*
Research Associates: KRISHNANATH BHASKAR DESHPANDE, ISAO HASHIMOTO

The Institute of Natural Science is an administrative unit of the University of North Carolina at Chapel Hill which was founded in 1956 to promote research and to strengthen teaching in the natural sciences.

The entire faculty of the Division of Natural Sciences are members of the Institute.

Continuing activities of the Institute include: an editorial branch established to serve its members; a directory of campus services and facilities available for research activities; a program, set up under the sponsorship of the Atomic Energy Commission, for the study of absorption of radioactive isotopes in clay minerals; National Science Foundation sponsored Academic year and Summer Institutes for High School Teachers of Science and Mathematics, and other college-high school projects.

RESEARCH LABORATORY OF ANTHROPOLOGY

JOFFRE LANNING COE, *Director*
GEORGE L. HICKS, JR., DONALD IRISH, *Research Associates*
BETTYE BROYLES, EDWARD DOLAN, DAVID PHELPS, ARTHUR J. RUBEL, H. MARLIN WYSONG, *Assistants*

The Research Laboratories of Anthropology were established October 7, 1939, for the purpose of conducting basic anthropological

studies in the field of archaeology, ethnography, physical anthropology, and other related fields. Its program is essentially inter-departmental and serves to coordinate these activities among other organizations. It also serves as a central repository and research center. Its present collection exceeds 1,000,000 items and is considered to be one of the primary sources for archaeological research in the South. The offices and processing laboratories are situated in Person Hall, together with a series of exhibits dealing with anthropology and related earth sciences.

CONSOLIDATED UNIVERSITY OF NORTH CAROLINA AGENCIES

TELEVISION STATION WUNC-TV

JOHN EARLY YOUNG, *Director of Television, University of North Carolina at Chapel Hill*
GEORGE LEIGH HALL, *Director of Television, North Carolina State College*
EMIL WILLIAM YOUNG, JR., *Director of Television, Woman's College*

Consolidated Personnel

ALAN BRIDGEMAN MACINTYRE, *Director of Engineering*
WILLIAM GOUR, *Transmitter Supervisor*
PERLIE MODLIN, *Transmitter and Recording Engineer*
WILLIAM MURRAY, HENRY R. PROPST, *Transmitter Engineers*
LESLIE JOE PAGE, *Film Department*
NANCY CARSON, *Traffic Department*

Chapel Hill Studio

JOHN EARLY YOUNG, *Director of Television*
RUTH ANN FORD, *Assistant to the Director*
ROGER WILLIAM KOONCE, *Production Manager*
JOHN ARTHUR WALLACE, *Program Manager*
HENRY BROWN, *Studio Engineer*
CHARLES RUSSELL HARDMAN, *Artist and Scene Designer*
CHARLES MARION BRASWELL, *Producer-Director*
ELIZABETH LOUISE COUCH, *Programming Assistant*

Television Station WUNC-TV, is licensed to the University of North Carolina as a non-commercial, educational television station. It is one of sixty such stations in the nation and has been on the air since January 8, 1955.

The station operates on Channel 4 with a visual effective radiated power of 100,000 watts, the highest power allowable for that channel. Its programs are received in the central section of the state.

WUNC-TV is an educational service to the people of North Carolina. Its purpose, according to its charter, is "to bring the individual

viewer toward informed adjustment to his society, to raise his standards of taste, to increase his range of valuable information, or to stimulate him to undertake worthwhile activities."

There are production centers on the campuses of the three institutions of the University. Programs are directed to in-school, adult, children's, and general audiences. A complete mobile production unit permits program origination from points of interest throughout a large part of the state. A video-tape recorder increases programming potential, permitting the delay of significant programs until best viewing times. A kinescopic recorder permits television recordings to be made of such programs for distribution or re-use.

Membership in the National Association of Educational Broadcasters and affiliation with the National Educational Television and Radio Center enable WUNC-TV to broadcast the best available programs from other educational television stations.

THE ALL-UNIVERSITY DIVISION OF RECREATION

HAROLD DIEDRICH MEYER, *Director*

The All-University Division of Recreation was established by the Board of Trustees in 1947. The growth of recreation throughout the nation, and the demand for recreation leaders, centered interest in the University on its responsibility to train leaders for this field. For some time in the University at Chapel Hill there has been opportunity to train for recreation leadership. At the State College in Raleigh, curriculum interest is centered around the training of leaders for recreation in industry, rural life, and park management. The course interest at the Woman's College in Greensboro is in the training of community recreation leaders and those in youth-serving agencies.

The All-University Division is designed to coordinate services, cooperate in the development of curricula, and integrate programs and activities.

The Division works in close cooperation with the North Carolina Recreation Commission and the North Carolina Recreation Society.

COMPUTATION CENTER

JOHN WEBER CARR III, *Director*

The Computation Center of the University of North Carolina is located in the addition to Phillips Hall on the Chapel Hill campus. This Center is equipped with a Remington Rand UNIVAC 1105 Data Automation System and operates under the Director. The Director has been responsible to the President of the University through the Vice-President for Graduate Studies and Research. On July 1, 1962, the Center will be placed under the administration of the

Chancellor of the University at Chapel Hill. The facilities and personnel of the Center are available to assist instruction and research throughout the consolidated University. A number of departments offer courses which are designed for students who are especially interested in high-speed computation or data processing.

Close cooperation between the faculty and the Computation Center is provided through advisory committees. From time to time, special short courses are given by the staff of the Center to assist faculty members in programming their problems for processing on the Computer.

An undergraduate non-credit course in the use of algebraic languages, GAT and NUIT, has also been available under the sponsorship of the mathematics department. Work has begun on production of a translator for the international standard ALGOL "algorithmic language," and is being completed for a processor for the IPL (Information Processing Language). These languages, used for solving non-computational problems in the areas of numerical analysis, computational error theory, automatic programming, artificial intelligence, logical design, automatic language translation, and other portions of the computer sciences will be available for use in research by students and staff.

Continuing seminars in the theory and use of techniques in linear programming, the solution of large scale linear systems, and translation of formal languages have been held in cooperation with members of the departments of Mathematics and Statistics and the School of Business Administration. Visiting scientists are invited each year to lecture at regular seminars of the Center on these and other computer-oriented topics.

INSTITUTE OF STATISTICS

GEORGE EDWARD NICHOLSON, JR., *Head of the Chapel Hill Section*
JACKSON ASHCRAFT RIGNEY, *Head of the North Carolina State College Section*

The Institute of Statistics is a research agency that was established in 1945 to stimulate and strengthen the University's program in statistics. The Institute works with departments and agencies which exist under the regular administrations. Through sections organized on respective campuses, it plays a major role in assisting local administrations to maintain and strengthen departments, and to administer grants and contracts which have to do with statistical theory and practice. It brings distinguished scholars to the University to do research, teaching, and occasional lecturing. It is instrumental in organizing summer sessions and conferences and encourages various statistical groups to work together for mutual benefit.

An Advisory Council made up of prominent leaders in business, universities, industries, public and private organizations, advises on the general program of the Institute of Statistics, assists in procuring and investing supplementary funds, and interprets to industry, government and others the purposes and potentialities of the Institute.

In Raleigh, the Institute cooperates with the Department of Experimental Statistics and engages in much close consulting work with the Agricultural Experiment Station and the Engineering School. Besides training graduate students whose chief interest is in applications of statistics, the Department of Experimental Statistics engages in cooperative research activities with government agencies and with industry in the state. In addition to conducting a graduate training program and granting M.S. and Ph.D. degrees in Experimental Statistics, the department conducts the undergraduate teaching of Statistics and offers a B.S. in statistics.

In Chapel Hill, the Institute works with many groups. The Department of Statistics is organized within the Graduate School and is principally concerned with research in theoretical statistics and in the training of students for M.S. and Ph.D. degrees. The Department has research projects sponsored by the Office of Naval Research, United States Air Force and other organizations in the area of probability and statistics, which provide opportunities for graduate students to conduct research leading to the Ph.D. degree and to receive stipends during their graduate study.

The Department of Biostatistics in the School of Public Health, the Social Science Statistics Laboratory, the Psychometric Laboratory, and the Computation Center are other organizations in Chapel Hill which, together with the Institute of Statistics, engage in cooperative research activities. Also, collaboration with the new Research Triangle Institute nearby is a major aspect of current activities. Through the Institute of Statistics, contact between members of the various groups is maintained and encouraged. Through uniting the strengths of several departments and campuses, the Institute represents a resource in statistics of great distinction.

Part Six

DIRECTORY AND REFERENCE

A Record for the Year 1961-1962

HISTORICAL SKETCH

1776-1804. Sanctioned in the North Carolina Constitution of 1776 and chartered by the General Assembly of 1789, the University began physical existence on October 12, 1793. On that day the state's Grand Master of Masons, William Richardson Davie, conducted the ceremonial laying of the cornerstone of Old East. Formal opening exercises were held January 15, 1795; the first student arrived February 12. After two weeks others came to make a first-term enrollment of 41, instructed by a faculty of two. Until 1804 the University had no president, but a succession of "presiding professors" managed to keep open the impoverished little school of classical studies on a wooded hill named for a chapel called New Hope.

1804-1870. The first four presidents of the University were Joseph Caldwell (1804-12; 1817-35), Robert H. Chapman (1812-16), David L. Swain (1835-68), and Solomon S. Pool (1868-70). The University survived sectarian and political attacks, public apathy, and continued poverty. It began its slow emergence from obscurity as it strengthened its faculty and liberalized its curriculum. The natural sciences gained equal status with classical studies (1815). Denison Olmstead in 1824 and Elisha Mitchell in 1827 prepared and published reports of a state geological survey. After the constitutional reforms of 1835 and the success attained by many alumni in state and federal government, a more favorable political climate for the University was accompanied by greater emphasis on education for public service. A private law school opened by Judge William H. Battle offered instruction to a class of regular academic students (1845). The 1858 enrollment of approximately 460 was the peak for the century between 1793 and 1893.

Four additional permanent buildings had been completed: South in 1814, Old West in 1823, Gerrard in 1837, Smith (now Playmakers Theatre) in 1851. Construction of New East and New West began in 1858 and was completed in the fateful summer of 1861.

With most of its faculty and students away in Confederate military service, the University remained open through the Civil War (1861-65) and for five years of the general economic ruin and partisan bitterness which forced its closing during the 1870-71 session.

1875-1900. The fifth, sixth, and seventh presidents of the University were Kemp P. Battle (1876-91), George T. Winston (1891-96), and Edwin A. Alderman (1896-1900). Charles Phillips, chairman of the faculty, was presiding officer of the reopened University in 1875-76.

The Constitution of 1868 had asserted the University's "inseparable connection with the Free Public School system of the State." As amended in 1873 it established the present legislative controls over the election of the Trustees and authorized the General Assembly to "make such provisions, laws and regulations, from time to time, as may be necessary and expedient for the maintenance and management of the University." A new Board of Trustees responded to the appeals of alumni and friends, and Mrs. Cornelia Phillips Spencer personally rang the long-stilled campus bell to announce the reopening in 1875. In regaining faculty strength and student enrollment before the end of the century, the University displayed stamina worthy of its heritage. Its vision was revealed in refusal to look back to lost eminence as a goal. First to open a summer "normal school" for teachers (1877), the University introduced regular courses in education as early as 1885. Other guideposts to the future included the beginning of medical and pharmaceutical studies (1879), the first regular legislative appropriation for University maintenance (1881), announcement of graduate studies leading to degrees (1876; A.M. and Ph.D. degrees awarded 1883), organization of learned societies for research and publication (Elisha Mitchell Scientific Society, 1883; Philological Club, 1893), reorganization of scientific laboratories and discoveries of major significance in industrial chemistry (1880-1900), administrative integration of the semi-independent School of Law (1894), admission of first women students (1897). Until 1900 no additional permanent building had been completed except the architecturally unique first Memorial Hall (1885), which was later condemned, razed, and completely rebuilt (1930-31). Carr was completed in 1900; Alumni and Smith were to be finished in 1901. Enrollment was 512 (1899-1900).

1900-1930. The eighth, ninth, and tenth presidents of the University were Francis P. Venable (1900-14), Edward K. Graham (1914-18), and Harry W. Chase (1919-30). Graham also served as acting president (1913-14) and after his death in the influenza epidemic of 1918 Dean Marvin H. Stacy, as chairman of the faculty, was authorized to perform presidential duties. Three months later, he too was similarly stricken.

The period before World War I was marked by significant gains in academic standards and productive scholarship of the faculty, reorganization and orderly expansion of library services, the gradual specialization of fiscal and administrative functions, and increased emphasis on the applied and social sciences. Physical education, athletics, and student government became increasingly important in cam-

pus life. As enrollment increased toward the 1,000 mark, reached before America's entrance into the war, state appropriations for urgently needed buildings were supplemented by gifts from alumni and friends and by special Carnegie and Peabody grants. Establishment of the Kenan Professorships Fund (1917) promised substantial and permanent incentive for excellence in teaching, research, and other service to the University. Extension services of the Library (1903), the School of Education (1913), and the Bureau of Extension (1913), made the University a significant participant in the secondary-school phase of the state's progress toward universal public education.

About 1920 the third phase of this educational awakening demanded a crucial test of the state's obligation and ability to provide essential accommodations for indefinitely increasing numbers of qualified high school graduates seeking further educational opportunity in state-supported institutions. The test was decisively passed when the General Assembly in 1921 appropriated $1,490,000 for beginning the University's comprehensive building program. Subsequent appropriations brought the ten-year total to $5,424,000. According to a professionally prepared long-range plan, the campus quickly expanded southward and eastward in balanced groups of new structures, neither crowding nor isolating historic old buildings. These were completely renovated. Selection of South Building as the campus "capitol" created a conspicuous symbol of the bond between heritage and modernization.

Though halted by depression and suspended by World War II, this essentially continuous expansion program still goes on, always impressive in the magnitude of completed stages, yet never at any stage abreast of the growing need for buildings not yet begun.

The 1920-30 period of enforced venture into bigness was also accompanied by further qualitative advances. The Graduate School, which had been established in 1903, was reorganized in 1920; the University was elected to membership in the Association of American Universities, and The University of North Carolina Press incorporated in 1922. The Institute for Research in Social Science was organized in 1924. In 1929 the University Library, professionally staffed, was moved into the first unit of the present Louis Round Wilson building. These expanded facilities for research and publication attracted an increasing number of graduate students and able young faculty members from all parts of the United States. Scholarly books and articles by specialists in various fields won national and international recognition for the University departments represented by the authors.

By 1930 the University had variously supplemented opportunities for professional education offered in the schools of Law, Medicine, Pharmacy, and Education. Recently added business subjects closely related to the academic and research programs of the Department of

Economics were included in the School of Commerce (now Business Administration) established in 1919. A School of Engineering, later to be merged with the consolidated University's program at North Carolina State College, was organized in 1922. The School of Library Science had been assured by a Carnegie Corporation grant (1929) and was to be opened in 1931. The School of Public Welfare, established in conjunction with the Department of Sociology in 1920, was to be renamed and reorganized several times before becoming the School of Social Work in 1950. Courses in journalism, first offered in the Department of English in 1909-10, had become professionally specialized as a separate department, which was to become the School of Journalism in 1950. Specialized workshop courses and productions in dramatic art, offered in the Department of English since 1918, had won national recognition for the Carolina Playmakers, who dedicated their Theatre in 1925. The Department of Music, organized in 1919, also developed rapidly and the present Hill Hall of Music was dedicated in 1930.

1930—. The eleventh president of the University, Frank P. Graham (1930-49), was elected first president of the consolidated University of North Carolina in 1932. The second and third presidents of the consolidated University of North Carolina have been Gordon Gray (1950-55) and William C. Friday (1956—). Acting presidents have been William D. Carmichael, Jr. (1947-48; 1949-50), and Harris Purks (1955-56). Prior to his election, President Friday also served as acting president (March-October, 1956). Administrative heads of the University at Chapel Hill have been Robert B. House (Dean of Administration, 1934-45; Chancellor, 1945-57) and William B. Aycock (Chancellor, 1957—).

The continued vigorous growth of the University has been marked by crowded events not yet subjected to historical evaluation. In the decade before World War II, the General College was organized (1935) and the School of Public Health established (1936). Physical education and athletic programs were greatly expanded after the opening of Woollen Gymnasium (1938). Modern, expanded facilities for medical study and research and for infirmary services to students were provided in the first units of what was to become the Division of Health Affairs.

The Naval ROTC unit was established in 1940. Throughout World War II the University made notable contributions to national military training programs. It provided a base and many instructors for the U. S. Navy Pre-Flight School. Its accelerated Navy V-12 program permitted students to pursue regular academic courses while training for active duty. Army and Air Corps programs of various kinds were also carried on. The Air Force ROTC unit was established in 1947.

War-time exertions and sacrifices did not stop studies and plans for peace. Continuously from 1942 until May 10, 1950, a committee of the General Faculty worked out and submitted at intervals for faculty approval the instrument known as "Faculty Legislation on University Government." The Faculty Council was established as the legislative body representing both the General Faculty and all administrative divisions of the University. Undergraduate, graduate, and professional programs were kept active, and plans were made for their post-war expansion. The Institute of Government became a part of the University in 1942; the Communication Center was established in 1945. Departments of City and Regional Planning (1946), Statistics (1946), Radio (1947), and Religion (1947), were established immediately after the war.

Legislative authorization and appropriations in 1947 began the phenomenal growth of the Division of Health Affairs, the most striking expansion of the University in recent years. The new Division was organized in 1949 and has already made incalculable contributions to the comprehensive health program of the state and region. Schools of Dentistry and Nursing have been added to previously organized schools of Medicine, Pharmacy, and Public Health. The completion and expansion of the North Carolina Memorial Hospital by offering abundant clinical facilities has contributed to the rapid development of both the old and new schools.

Among other recent events are the vastly enlarged scholarship and development programs participated in by state and national foundations, Alumni Annual Giving, private donors, government and industry; establishment on the campus of the WUNC-TV station for educational television; re-establishment (1948) of the School of Education (discontinued 1933) and its subsequent rapid expansion; similar development of the School of Business Administration (name changed from School of Commerce, 1950); the completion of the new School of Pharmacy building (1959); the moving of the School of Journalism to the remodeled Howell Hall (1960); such notable cultural additions as the Morehead Building and the William Hayes Ackland Memorial Art Center; installation of a Remington Rand UNIVAC 1105 Data Automation System; and the expanding adult-education services of the University Extension Division and the Institute of Government.

Enrollment in the fall of 1941 was 4,108, the all-time high before World War II. In 1948-49 it reached 7,603, then declined as veterans completed their programs. Rising again without abnormal pressures, it was 9,082 in 1961-62.

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BENEFACTIONS

THE DEVELOPMENT COUNCIL

The Development Council was organized in June 1952. It is made up of a volunteer group of distinguished business and professional leaders of the state who are cooperating with the administration, trustees, faculty, alumni, and friends in planning and carrying out a continuous development program to serve the University and the state. Among its other duties, the Council is vitally interested in the coordination of the efforts of the programs listed below. Charles M. Shaffer, Chapel Hill, N. C., is director.

ALUMNI ANNUAL GIVING. Annual giving was organized in September 1952, to give every alumnus the opportunity of annually assisting the University by contributing to an unrestricted fund. Inquiries should be sent to the director, Tom Bost, Jr., Alumni Annual Giving, Chapel Hill, N. C.

THE BEQUEST PROGRAM. Initiated in September 1955, the Bequest Program is designed to inform alumni and friends of the opportunities existing at the University for purposeful and enduring memorials. Development Office and the University officials are available to assist interested donors in creating a thoughtful and mutually beneficial bequest. Inquiries may be directed to Charles M. Shaffer, Development Office, Chapel Hill, N. C.

THE BROADCASTING FOUNDATION OF NORTH CAROLINA, INC. The Broadcasting Foundation was organized in 1955 ". . . to sponsor, promote, encourage, support, and assist, financially and otherwise the advancement of education in the fields of radio and television at or through the Department of Radio, Television, and Motion Pictures

of the University of North Carolina at Chapel Hill." Inquiries should be directed to Earl Wynn, Chairman of the Radio, Television, and Motion Pictures Department, Chapel Hill, N. C.

THE BUSINESS FOUNDATION OF NORTH CAROLINA, INC. The Business Foundation was established in July 1946. Its articles of incorporation provided: "The objects and purposes for which the corporation is formed are to aid and promote, by financial assistance and otherwise, all types of education, service and research for business and industry at or through the School of Business Administration and other departments of the University of North Carolina. . . ." Inquiries should be directed to Dean Maurice W. Lee, School of Business Administration, Chapel Hill, N. C.

THE DENTAL FOUNDATION OF NORTH CAROLINA, INC. The Dental Foundation, incorporated under the laws of North Carolina in 1950, is dedicated to the achievement of optimum dental and general health for all citizens of North Carolina. It is designed specifically to aid educational and research programs, including student loans, scholarships, and the library, of the School of Dentistry of the University of North Carolina. Inquiries should be directed to Dean John C. Brauer, School of Dentistry, Chapel Hill, N. C.

THE EDUCATIONAL FOUNDATION, INC. The Educational Foundation was organized in 1939 "to provide grants-in-aid to worthy and needy students participating in athletics." All grants-in-aid are awarded through the University Scholarship Committee. Inquiries should be directed to the executive secretary, Ernest W. Williamson, Woollen Gymnasium, Chapel Hill, N. C.

THE FRIENDS OF THE LIBRARY. The Friends of the Library was organized in 1932 "to promote the interests of the Library of the University of North Carolina at Chapel Hill, including the libraries of its schools and departments, by every means at the command of the organization or of its individual members." Inquiries should be directed to Dr. Jerrold Orne, Director of Libraries, University Library, Chapel Hill, N. C.

THE SCHOOL OF JOURNALISM FOUNDATION OF NORTH CAROLINA, INC. The Journalism Foundation was chartered in 1949 "to sponsor, promote, . . . the advancement of education in the field of journalism at or through the School of Journalism of the University of North Carolina at Chapel Hill. . . ." Inquiries should be directed to Dean Norval Neil Luxon, School of Journalism, Chapel Hill, N. C.

LAW ALUMNI ASSOCIATION OF THE UNIVERSITY OF NORTH CAROLINA, INC., AND THE UNIVERSITY OF NORTH CAROLINA LAW FOUNDATION. Incorporated in 1952, its broad purposes are: "To sustain among the

alumni high, ethical principles in the practice of law and otherwise to benefit the profession; to encourage the continuing development of legal education; to provide for scholarships and other aid to students; to provide prizes for excellence in student endeavors and recognition for alumni for outstanding achievements." Inquiries should be directed to Dean Henry Brandis, School of Law, Chapel Hill, N. C.

THE MEDICAL FOUNDATION OF NORTH CAROLINA, INC. The Medical Foundation, incorporated in 1949, has as its over-all objective that of aiding in medical education, medical research, and medical services to the people of North Carolina through the facilities of the University of North Carolina at Chapel Hill, and specifically through its School of Medicine, the North Carolina Memorial Hospital, and the School of Nursing. Inquiries should be directed to Charles M. Shaffer, Chapel Hill, N. C.

THE NORTH CAROLINA PHARMACEUTICAL RESEARCH FOUNDATION, INC. The North Carolina Pharmaceutical Research Foundation, Inc., was organized in 1946 "to foster and promote . . . education and research in the School of Pharmacy of the University of North Carolina and in the State. . . ." Business is transacted chiefly through the office of Dean E. A. Brecht, School of Pharmacy, Drawer 629, Chapel Hill, N. C.

DISTINGUISHED PROFESSORSHIPS

THE KENAN PROFESSORSHIP FUND was established in 1917 by the bequest of Mrs. Lily Kenan Flagler Bingham in memory of her father, William R. Kenan, Class of 1864, her uncles, Thomas K. Kenan, Class of 1857, and James Graham Kenan, Class of 1861. Sixty-four professors have borne this distinguished and coveted title "in the interest of education of the youth of North Carolina."

THE BURTON CRAIGE PROFESSORSHIP was provided for by a gift of the late Burton Craige of Winston-Salem, Class of 1897, in a Trust Agreement dated December 14, 1938, "to encourage and inspire at Chapel Hill a love of political or legal wisdom with some knowledge of the philosophy and history of our own constitutional governments, state and Federal, and their interpretations and administration."

THE JAMES A. GRAY PROFESSORSHIP IN THE BIBLE. A fund was established in 1946 by the late James Alexander Gray, Class of 1908, for "maintenance of a Chair of Instruction in the Bible and for use in instruction in related fields of religion."

THE JULIAN PRICE PROFESSORSHIP OF INSURANCE was established in May 1947, by Mr. Ralph C. Price and Mrs. Kathleen Price Bryan as a memorial to their father, to provide funds for "instruction in any

or all phases of life insurance." Provision was made, moreover, that any excess income "shall be applied to expenses of research in said School . . . or toward scholarships."

THE WACHOVIA PROFESSORSHIP OF BANKING was provided for in October 1951, by a gift from the Wachovia Bank and Trust Company to the Business Foundation. Income from the endowment is made available annually to the University for support of instruction and research in the field of banking.

THE BURLINGTON INDUSTRIES CHAIR IN MARKETING was established in November 1951, provided for by the annual income from a gift made by the Burlington Industries, Inc., to the Business Foundation.

THE REYNOLDS PROFESSORSHIP, also established in November 1951, was provided for by the annual income from a gift made by the R. J. Reynolds Tobacco Company to the Business Foundation. Currently these funds are used to support the R. J. Reynolds Professor of Human Relations in Industry.

THE GEORGE L. PADDISON PROFESSORSHIP FUND was established by the will of the late George L. Paddison, Class of 1905, who died October 17, 1954, "to provide a superior degree of competence and excellence in the teaching of Latin and Greek."

THE DREXEL RESEARCH PROFESSORSHIP, provided for by income from a gift of endowment funds by the Drexel Furniture Company to the Business Foundation completed in March 1959, is awarded annually to a faculty member involved in major research responsibilities.

ALUMNI DISTINGUISHED PROFESSORSHIPS are made possible by contributions of alumni to Alumni Annual Giving. These professorships will enable the University to strengthen the faculty and the quality of teaching. Six awards were made in 1961.

THE MAHLON K. JORDAN VISITING PROFESSORSHIP FUND was established in 1961 by Mahlon K. Jordan, Class of 1935. A committee has been appointed to name the first "visiting teacher or lecturer" for the academic year 1962-63.

FELLOWSHIPS AND SCHOLARSHIPS

The following chronological list does not include fellowships and scholarships restricted to particular fields of study. These are listed separately, beginning on page 334. Certain aids to students provided through regular University appropriations or temporary grants from other sources are also excluded. Graduate and professional students should consult the special catalogues of the schools they expect to enter.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, North Carolina, bequeathed $10,000, the interest of which shall be devoted to paying the tuition of students. In 1940, James Moore, the son of the donor, raised the sum to $15,000.

THE FRANCIS J. SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University in memory of her brother, Dr. Francis Jones Smith, 1,460 acreas of land, known as Jones' Grove, in Chatham County. The will provides that rents of the land or, if sold, the interest on the purchase money shall be used to pay the tuition of such needy student as the faculty shall appoint.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed $37,000 for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded in his memory ten scholarships.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepherd Speight bequeathed $10,000 to the University. The income shall be used to pay the tuition of needy students; if tuition is ever made free, the income shall be used toward paying the salaries of professors.

THE MARTHA AND VARINA MASON SCHOLARSHIPS. (Established in 1894.) Mrs. Mary Elizabeth Mason bequeathed to the University a tract of about 800 acreas of land (now known as Mason Farm) which had been purchased by her grandfather from the Earl of Granville, and her husband, Rev. James Pleasant Mason gave $1,000. The endowment is named after their two daughters, Martha and Varina Mason, and the income is used for the education of needy students.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil of Goldsboro, North Carolina, furnishes one scholarship of the value of $75.00.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships were founded by Mrs. Shirley Carter, of Baltimore, Maryland, and the late Mrs. James Sprunt, of Wilmington, North Carolina, in memory of their father.

THE DONALD FAIRFAX RAY SCHOLARSHIP. (Established in 1919.) Mrs. N. W. Ray of Fayetteville, North Carolina, established this scholarship in memory of her son, Donald Fairfax Ray, a graduate of the University, who died while in the service of his country.

THE HOLT SCHOLARSHIPS. (Established in 1920.) Four scholarships are maintained by the income from the Holt Loan Fund, established

by Mr. Lawrence S. Holt, Jr. They are awarded to a member of each of the four classes in the academic department. Applications are considered after the opening of the University in the fall.

THE R. H. LEWIS SCHOLARSHIPS. Four scholarships, endowed by the University Gymnasium Association and called the R. H. Lewis Scholarships, are assigned by the President, and are to be used for tuition in the academic department.

THE GEORGE NEWBY TOMS SCHOLARSHIPS. (Established in 1926.) Mr. C. W. Toms, in memory of his son, George Newby Toms, granted the income from a fund of $10,000 as scholarships to worthy students, preference being given to students from Durham and Perquimans counties in North Carolina.

THE GENERAL ROBERT RANSOM SCHOLARSHIP. This $200 scholarship, controlled by the United Daughters of the Confederacy in North Carolina, is awarded each year to a lineal descendant of a Confederate veteran.

THE WILLIAM BLOUNT RODMAN SCHOLARSHIPS. Two scholarships assigned to students at the University from the memorial trust fund created by Colonel W. B. Rodman in memory of his father, William Blount Rodman. They are assigned by the State Superintendent of Public Instruction, Trustee of the fund.

THE MARK R. BRASWELL SCHOLARSHIPS. (Established in 1938.) In memory of Dr. Mark R. Braswell, Class of 1888, of Rocky Mount, North Carolina, a fund of $20,000 has been created for the endowment of scholarships valued at $250 each to be awarded annually to entering freshmen by the Braswell Scholarship Committee. Six scholarships are awarded annually for a tenure of one year each. The Committee, at its discretion, may extend the tenure, thus enabling the award to be made to a previous holder. The qualifications for award are character, all-round development, high scholastic attainment, and financial need.

THE HERBERT WORTH JACKSON MEMORIAL SCHOLARSHIPS. (Established in 1938.) Endowed by Mrs. Annie H. Jackson of Richmond, Virginia, as a memorial to her husband, Herbert Worth Jackson, Class of 1886, and supplemented in 1940 by additional gifts of Herbert Worth Jackson, Jr., and Samuel S. Jackson, the fund maintains four $2,800 scholarships for entering freshmen, native-born residents of North Carolina, nominated by their high schools or preparatory schools. One candidate only may be certified by each school to the University Scholarship Committee, which in turn shall select from all boys thus certified twenty, who shall come to Chapel Hill for interviews with the Jackson Scholarship Committee. The basis of selec-

tion shall be high scholastic rank, character, qualities of leadership, achievement, physical health and vigor, and promise of future distinction. A new four-year award is made each year.

THE BERNARD-GRAIL SCHOLARSHIPS. (Established in 1938.) Scholarships of $150 each, maintained by interest from the Grail Loan Fund and net receipts from dances given from time to time by the Order of the Grail for the welfare of the entire student body. These scholarships were established in memory of Professor William Stanley Bernard who, as faculty adviser, was a source of inspiration and guidance to the Order of the Grail.

THE COUNCIL-MASSEY SCHOLARSHIP. (Established in 1941.) This scholarship was founded by C. Knox Massey of Durham, North Carolina, in honor of his father, C. W. Massey, University alumnus, civic and educational leader of Durham, and C. T. Council, University trustee, manufacturer, civic and educational leader of Durham. Scholarships are awarded from time to time as the interest from a principal fund of $45,000 makes them possible.

THE GEORGE W. GRAHAM MEMORIAL SCHOLARSHIP. (Established in 1942.) Established by Mrs. George W. Graham, Sr., of Charlotte, North Carolina, as a memorial to her husband, Dr. George W. Graham, Class of 1868. The income only is to be used as scholarship awards. The recipient is to be designated by the University Scholarship Committee.

THE COLUMBUS HOWARD MORRISON SCHOLARSHIP. (Established in 1943.) Established by Fred W. Morrison of Washington, D. C., in memory of his father, Columbus Howard Morrison. Income from the investment of the scholarship endowment is to provide scholarships for promising young men and women who need financial assistance with preference given to those students from Cabarrus and Rowan counties.

THE CHI PSI SCHOLARSHIP. (Established in 1946 by the Trustees of the Chi Psi Fraternity Educational Trust.) One scholarship, not to exceed $200, to be awarded annually by the University Scholarship Committee to a regularly enrolled junior or senior student member of the Chi Psi Fraternity who has exhibited promise in scholarship and qualities of leadership.

THE ANDREW BERSHAK INTERFRATERNITY SCHOLARSHIP. (Established in 1948.) Established from contributions from University of North Carolina students who are members of various social fraternities as a memorial to Andrew Bershak, Class of 1938. The fund maintains a scholarship valued at $2,000 covering a four-year tenure ($500 a

year) subject to maintenance of high standing by the recipient as a student at the University. The basis of selection shall be high scholastic rank, character, qualities of leadership, and financial need.

THE JOSEPHUS DANIELS SCHOLARSHIP. In accordance with the will of the late Josephus Daniels, funds have been provided to establish a scholarship valued at $500 a year for four years to be awarded to a North Carolina student. This award is made on the basis of scholarship, character and citizenship, and financial need.

THE WILLIAM ISAAC WITKIN SCHOLARSHIP. The income from a fund of $10,000 to be used as scholarships to be awarded each year by the University Scholarship Committee in accordance with its usual regulations. This fund was established by Mr. Isaac Witkin, of New York City, in gratitude for and in commemoration of the safe return from war service of his son, William Isaac Witkin, Class of 1943.

THE CHARLIE JUSTICE SCHOLARSHIP. One scholarship maintained by interest from a fund of $10,000 raised by the Tar Heel Club of Durham, North Carolina, from friends and admirers of Charlie Justice, outstanding University athlete, Class of 1950. The scholarship is to be awarded each year by the University Scholarship Committee to a graduate of a North Carolina high school who has demonstrated outstanding ability as a football player and who can otherwise qualify for a University scholarship.

THE JOHN MOTLEY MOREHEAD SCHOLARSHIPS. (Established in 1951 by the John Motley Morehead Foundation.) Awards for merit without consideration of need for undergraduate study leading to an academic degree may be given only to graduates of high schools and preparatory schools on the list of eligible institutions. The scholarships are valued at $1,275 per annum plus the tuition differential for out-of-state students, subject to renewal upon the maintenance, by a scholar, of standards of work and conduct which in the opinion of the Trustees of the Foundation, justify the scholarship. Each eligible school selects its nominees through its own Scholarship Committee.

THE CARRIE HEATH SCHWENNING SCHOLARSHIP. (Established in 1954.) Provided for and awarded by the Chapel Hill Branch of the American Association of University Women, this scholarship of $100 is awarded annually to a woman graduate student.

THE AUBREY LEE BROOKS SCHOLARSHIPS. (Established in 1955.) An endowment fund of approximately $1,000,000 established by Mr. Aubrey Lee Brooks, of Greensboro, North Carolina, Class of 1895, to promote the education of deserving youth by providing scholarships at the University of North Carolina in Chapel Hill, the North Carolina State College of Agriculture and Engineering in Raleigh, and the

Woman's College in Greensboro, to high school graduates selected by the Trustees of the Aubrey Lee Brooks Foundation. Applicants for these scholarships shall be residents of Surry, Stokes, Rockingham, Caswell, Person, Granville, Alamance, Orange, Durham, Guilford, and Forsyth counties. Applications may be secured from high school principals in the counties named. The scholarships are currently valued at approximately $600 for each year.

THE BURLINGTON INDUSTRIES SCHOLARSHIPS. (Established in 1955.) These annual scholarships provided by the Burlington Foundation are awarded to an outstanding junior for his or her final two years of undergraduate study. Students selected for the award receive $500 annually. In addition, the Burlington Foundation gives an equal amount to the University for administrative purposes. Selection criteria are: leadership, scholarship, and financial need.

THE GENERAL MOTORS COLLEGE-PLAN SCHOLARSHIP. (Established in 1955.) The General Motors Corporation, through its grants for unrestricted funds to higher education and its scholarship awards, expresses its vital interest in higher education and its desire to help students of superior ability but limited financial resources realize their potentialities to the fullest. General Motors College-Plan Scholarships are four-year awards. Stipends vary from $200 to $2,000, depending on the need of the individual. The University has full discretion in awarding these scholarships. There are no limitations as to course of study or future employment. Two awards are made each year to entering freshmen who are citizens of the United States, have excellent high school academic records, good records in extracurricular activities, a well developed sense of responsibility, and demonstrated qualities of leadership.

THE TEXACO SCHOLARSHIP. (Established in 1957.) This scholarship was established by the Texas Company as a part of its aid-to-education program. Awards are made each year to juniors and seniors planning to enter a field of study "which would be useful to the oil industry, although there shall be no obligation of such employment on the part of the company or the student." The annual value (tuition, matriculation fees, and books) is approximately $500. The scholarship is renewable for one year if the student is a junior.

THE ALUMNI ANNUAL GIVING GRADUATE FELLOWSHIPS. (Established in 1957.) As one of its most significant contributions to the University in 1957, the Alumni Annual Giving Program created a number of $2,100 fellowships available to qualified students entering the School of Graduate Studies.

THE ALSTON-PLEASANTS SCHOLARSHIPS. (Established in 1958.) Mrs. Missouri Alston Pleasants of Louisburg, North Carolina, established a

trust fund of $100,000 to the University of North Carolina as a memorial in honor of Willis (Congress) Alston. The trust agreement directs that the annual earned income from the trust fund shall be used by the University of North Carolina at Chapel Hill to provide Alston-Pleasants Scholarships for either boys or girls who are residents of Franklin, Halifax, and Warren Counties of North Carolina, and who are eligible by the standards of the University of North Carolina at Chapel Hill for admission to the University at Chapel Hill. "It is the wish and expectation of the Grantor that the Scholarship Committee of the University shall select as recipients of funds from this trust white youths, without regard to social or economic standing, who not only have a satisfactory scholastic record but also are possessed of the best traits of upright morals, sincerity, industry, thrift, truthfulness, kindness and Christian humility." The present maximum annual value of the scholarship is $1,250. Tenure for the scholarship is four years, subject to good scholastic performance and commendable conduct.

THE BLANCHARD SCHOLARSHIPS. (Established in 1959.) This endowment provided for in the last will and testament of Miss Elizabeth Amis Cameron Blanchard, dated November 16, 1943, to be known as the John Osgood Blanchard and Elizabeth Amis Cameron Blanchard Scholarships. Income from this endowment is to be used for scholarships for worthy divinity students of the Episcopal faith, or for scholarships for any worthy sons or daughters of Episcopal ministers or worthy Episcopal descendants of Colonial ancestors, as the Trustees of the University in their discretion may determine.

THE ESCHEATS SCHOLARSHIPS. Receipts from escheated property and interest and earnings thereon have been set apart by the Trustees of the University in a special fund. The earnings from the fund are allocated to the institutions comprising the University of North Carolina for scholarships and loan funds to worthy and needy students who are residents of North Carolina.

THE STUDENTS STORES GRANTS AND AWARDS. By action of the Board of Trustees of the University of North Carolina, May 1952, profits from the Book Exchange and other student stores are set aside for scholarships and grants-in-aid. With the exception of the Morehead Scholarships, Escheats Scholarships, and Students Stores Grants and Awards, these Scholarships are not open to students in the schools of Law, Medicine, Dentistry, Library Science, Public Health, Social Work, and Nursing. For scholarships open to students in these schools, please see the special bulletins of the schools. This list does not include certain annual contributions for scholarships, which are not on an endowment basis.

THE WILLIAM ASBURY WHITAKER SCHOLARSHIPS. (Established in 1960.) The William A. Whitaker Foundation was established April 28, 1960, at the University of North Carolina at Chapel Hill, by the bequest of the late William Asbury Whitaker of New York City, formerly of Winston-Salem, of approximately $1,750,000. One-third of the legacy supports scholarships and fellowships, the recipients to be known as "Whitaker Scholars" or "Whitaker Fellows."

Worthy graduates of North Carolina high schools and preparatory schools take precedence in awards, but candidates from other states may be eligible. Mr. Whitaker directed, "It is my intention that the said scholarships for the most part shall be awarded to undergraduates and for just one year at a time, and that first year students be given preference, except that subsequent annual scholarship may be granted, from year to year, to those students whose record in each preceding year is of sufficiently high standard to justify appointment for another year. . . . The chief requirements for these scholarships, undergraduate and graduate, should be scholastic standing and financial need and I desire that the value of each annual free scholarship shall, in general, be the cost of tuition for one year."

FELLOWSHIPS AND SCHOLARSHIPS RESTRICTED TO DESIGNATED FIELDS OF STUDY

BUSINESS ADMINISTRATION AND ECONOMICS

THE MARY K. BROWN MEMORIAL SCHOLARSHIP. (Established in 1931.) This scholarship, established by Mrs. James M. Brown in memory of her daughter, who for several years was secretary of the School of Commerce of the University, is awarded to a worthy student who is dependent upon his own efforts to secure an education.

THE ERNEST H. ABERNETHY FELLOWSHIP IN SOUTHERN INDUSTRY. (Established in 1944.) Established by Ernest H. Abernethy to be awarded annually to a graduate student who is required to do research in an industry of importance to the South and to prepare a thesis as the result of the study. The fellowship currently carries a cash award of $2,000 annually.

THE MARVIN B. SMITH, JR., MEMORIAL SCHOLARSHIP. (Established in 1944.) Established and endowed by Mr. and Mrs. M. B. Smith, Sr., Mrs. Alyse Cooper, and J. Harold Smith, of Burlington, North Carolina, as a memorial to their son and brother, Marvin B. Smith, Jr., of the Class of 1926. The fund maintains four scholarships, valued at $600 each and annually awarded to entering freshmen who plan to have their major work in the School of Business Administration. Applicants must be residents of North Carolina. The tenure of the scholarship is four years, provided the holder maintains high moral

and scholastic standards. The basis of selection shall be high scholastic rank, character, promise of business leadership, and financial need.

THE PEAT, MARWICK, MITCHELL & CO. SCHOLARSHIP. (Established in 1953.) Established by the Peat, Marwick, Mitchell & Co. accounting firm in the amount of $500 awarded annually to an outstanding student majoring in accounting.

THE BUSINESS FOUNDATION M.B.A. SCHOLARSHIPS. (Established in 1954.) Established by the North Carolina Business Foundation to be given in varying amounts, based upon scholarship, to candidates for the M.B.A. degree.

THE PILOT FREIGHT CARRIERS, INC., SCHOLARSHIP. (Established in 1955.) Established by Pilot Freight Carriers, Inc., in the amount of $500 to be awarded annually to an outstanding transportation major.

THE DURHAM BANK AND TRUST COMPANY, HOME SECURITY LIFE INSURANCE COMPANY, AND DURHAM REALTY AND INSURANCE COMPANY SCHOLARSHIP. (Established in 1956.) Established by the companies for whom it is named and awarded annually to a male resident from Durham County who definitely is to study economics and business administration and is made on the basis of character, ability and need. This is a $2,000 scholarship, consisting of $500 per year for four years, subject to yearly re-evaluation.

THE HASKINS & SELLS SCHOLARSHIP. (Established in 1956.) Established by the Haskins & Sells Foundation in the amount of $500 to be presented annually to an outstanding accounting student.

THE ANDREW WARREN PIERPONT MEMORIAL SCHOLARSHIP. (Established in 1957.) Established by family and friends of Professor Andrew Warren Pierpont. The amount of $150 annually is awarded to a Business Administration student who has completed his junior year. The scholarship is based on merit and need.

THE EXECUTIVE PROGRAM SCHOLARSHIP. (Established in 1957.) Established by the Fourth Executive Group and continued annually by each succeeding group. The amount of $500 is awarded annually to a candidate for the M.B.A. degree. It is based on merit and need, with particular emphasis on merit.

THE ERWIN MILLS SCHOLARSHIP. (Established in 1957.) Established by the Erwin Mills Company in the amount of $500 to be awarded annually to a candidate for the M.B.A. degree.

THE HASKINS & SELLS FACULTY ASSISTANCE FELLOWSHIP. (Established in 1958.) Established by the Haskins & Sells Foundation in the

amount of $1,000 to be awarded annually to an instructor in accounting who is pursuing a higher academic degree in preparation for a career as an accounting teacher.

THE BUSINESS FOUNDATION PREDOCTORAL SCHOLARSHIPS. (Established in 1958.) Established by the North Carolina Business Foundation to be given in varying amounts, based upon scholarships, to candidates for the Ph.D. degree in economics or business administration.

THE PRICE WATERHOUSE FOUNDATION FELLOWSHIP. (Established in 1958.) Established by the Price Waterhouse Foundation in the amount of $1,000 annually to be used to support a research program by a member of the accounting faculty or a graduate fellowship for students majoring in accounting.

THE JULIAN PRICE FELLOWSHIP IN ECONOMICS AND BUSINESS. (Established in 1959.) Established by the Julian Price Fund created by Mr. Ralph C. Price and Mrs. Kathleen Price Bryan as a memorial to their father. The awards range down from $3,600 and are awarded annually to graduate students. The awards are based on scholarship.

THE NORTH CAROLINA MOTOR CARRIERS ASSOCIATION GRADUATE RESEARCH FELLOWSHIP. (Established in 1959.) Established by the North Carolina Motor Carriers Association to be awarded annually in varying amounts to graduate students in the field of transportation.

THE CARGILL, WILSON AND ACREE SCHOLARSHIP. (Established in 1960.) Established by Cargill, Wilson and Acree, Inc., in the amount of $500 to be awarded annually to a candidate for the M.B.A. degree.

THE ERNST AND ERNST SCHOLARSHIP. (Established in 1960.) Established by Ernst and Ernst in the amount of $500 awarded annually to an outstanding student majoring in accounting.

CHEMISTRY

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. Ledoux.) The holder of this fellowship, which provides $300 annually, is expected to devote himself to research in chemistry.

DRAMATIC ART

FREDERICK H. KOCH PLAYWRITING SCHOLARSHIP. (Established in 1945.) Established jointly by the University of North Carolina and the friends of Professor Koch. Students of junior, senior, or graduate standing may apply, and the choice of candidates, made upon the recommendation of the Department of Dramatic Art, is based on the applicant's talent in playwriting and on his need for financial assistance.

JOURNALISM

THE LOUIS GRAVES SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at $300 in honor of Louis Graves, teacher of journalism at the University from 1922 to 1924. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE GERALD W. JOHNSON SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at $300 in honor of Gerald W. Johnson, who taught journalism on the campus from 1924 to 1926. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE O. J. COFFIN SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at $300 in honor of O. J. Coffin, head of journalism instruction at the University from 1926 to 1953. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE QUINCY SHARPE MILLS SCHOLARSHIP. (Established in 1956.) The late Mrs. Nancy Sharpe Mills bequeathed to the University $17,000 as an endowment for scholarships in memory of her son, Quincy Sharpe Mills, who was killed in France July 26, 1918. The income from the endowment is for use in providing scholarships for worthy young men who would be unable to study journalism otherwise.

THE BEATRICE COBB SCHOLARSHIP. (Established in 1960.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at $300 in honor of Miss Beatrice Cobb, for many years secretary of the North Carolina Press Association and owner-editor of the *Morganton News-Herald.* The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a student in the School of Journalism.

LIBRARY SCIENCE

THE SUSAN GREY AKERS SCHOLARSHIP IN LIBRARY SCIENCE. (Established in 1951.) Established by the University of North Carolina School of Library Science Alumni Association as a tribute to Dr. Akers, the Director and Dean of the School from 1932 to 1954. It is awarded to an applicant for graduate work in library science at the

University of North Carolina on the basis of professional promise, supplemented by character, qualities of leadership, and high scholastic achievement.

MARINE BIOLOGY

THE H. V. WILSON SCHOLARSHIPS FOR STUDENTS IN MARINE BIOLOGY. (Established originally in 1937, supported subsequently from a fund established jointly by Dr. Henry V. Wilson, Jr., and former students and friends of Professor Wilson.) The holder of this $100 scholarship is expected to pursue graduate studies or research at the seacoast during the summer of award.

MUSIC

THE ERIC SCHWARZ MEMORIAL SCHOLARSHIP. This scholarship of $250 is awarded annually by the University Scholarship Committee as a memorial to Eric Schwarz, a freshman at the University in 1943-1944 who was killed in action in Germany, February 18, 1945. The scholarship is provided by his parents, Dr. and Mrs. Berthold T. D. Schwarz, of Montclair, New Jersey. The award is made to an entering freshman with special talents in music.

THE GERRIE HAM MEMORIAL FLUTE SCHOLARSHIP. (Established in 1960.) This scholarship established by Dr. and Mrs. George C. Ham in memory of their daughter, Gerrie, and supported by a number of individual gifts, provides tuition for flute instruction, valued at $135, and is awarded annually to a student proficient in flute-playing.

NURSING

THE SCHOOL OF NURSING COMMITTEE SCHOLARSHIPS. (Established in 1953.) Sponsored by the School of Nursing Committee of the Medical Foundation of North Carolina, Inc., a number of individual and corporate gifts provide scholarships to deserving students entering the School of Nursing. Varying in amount from $100 to $500 the awards are renewable annually for a period of four years upon evidence of satisfactory progress toward a nursing degree.

Particular attention is invited to the new MERIT SCHOLARSHIP (established in 1960), was awarded for the first time in 1961. The value of the scholarship is $500.

PHARMACY

THE AMERICAN FOUNDATION FOR PHARMACEUTICAL EDUCATION SCHOLARSHIPS. This foundation offers annually $400 to be utilized by the School for undergraduate pharmacy scholarships, and the School awards these scholarships to college students enrolled in the fourth-

or fifth-year classes who are in need of financial aid, and who have established evidence of competence and scholastic ability (maintaining a rank in the upper one-quarter of their class or an average of *B* as a minimum).

The David Astor Dowdy Pharmacy Scholarship. (Established in 1948.) Endowed by the Mann Drug Stores, of High Point. The fund maintains a pharmacy scholarship valued at $225 annually. The tenure of the scholarship is for one year, provided the holder of the award maintains high standards both in character and in scholarship, but it may be renewed each year until graduation at the end of five years. The basis of selection shall be high scholastic rank, character, promise of professional aptitude, and financial need.

The scholarships that follow are valued at $225 or more for each.

The C. T. Council Scholarships. Two in number. Established in 1926 by Mr. C. T. Council, of Durham.

The Justice Drug Company Scholarships. Three in number. Established in 1931 by the Justice Drug Company, of Greensboro.

The Scott Drug Company Scholarships. Two in number. Established in 1931 by the Scott Drug Company, of Charlotte.

The W. H. King Drug Company Scholarships. Two in number. Established in 1931 by the W. H. King Drug Company, of Raleigh.

The Vivian Spradlin Smith Scholarship. (Established in 1932 by the Woman's Auxiliary of the North Carolina Pharmaceutical Association as a loan fund and converted in 1946 as an endowed scholarship. It was named to honor Mrs. Vivian Spradlin Smith in 1959.) This scholarship is given annually to a deserving pharmacy student who shows both need and ability. Its value for the current year was $300.

The C. B. Miller Memorial Scholarship. Established in 1945 by Mr. B. R. Ward of Goldsboro, in memory of Mr. C. B. Miller, of Goldsboro.

The Owens, Minor & Bodeker Scholarship. Established by the parent organization in 1945 and continued by Owens, Minor & Bodeker, Inc., of Richmond, Virginia.

The Grace K. Edwards Scholarship. Established in 1950 by the Charlotte Women's Druggist Auxiliary.

The Charlotte Woman's Druggist Auxiliary Scholarship. Established in 1953 by the Charlotte Women's Druggist Auxiliary.

The Greensboro Drug Club Auxiliary Scholarship. Established in 1954 by the Greensboro Drug Club Auxiliary.

THE BURWELL & DUNN COMPANY SCHOLARSHIP. Established in 1955 by the Burwell & Dunn Company, of Charlotte.

THE NORTH CAROLINA PHARMACEUTICAL RESEARCH FOUNDATION SCHOLARSHIPS. Five in number. Established in 1955.

THE ECKERD SCHOLARSHIPS. Three in number. Established in 1957 by the Eckerd Drug Stores.

THE N. C. MUTUAL WHOLESALE DRUG COMPANY SCHOLARSHIPS. Two in number. Established in 1960 by the N. C. Mutual Wholesale Drug Company, of Durham.

The scholarship that follows is valued as stated:

THE PEPSODENT PRESIDENTIAL AWARD. Valued at $100 per year for five years and established in 1956 by the Pepsodent division of Lever Brothers Company, of New York City. The award is presented by the President of the North Carolina Pharmaceutical Association to the most worthy freshman selected by the Committee on Scholarships of the School of Pharmacy.

Scholarship loans valued at $225:

THE NORTH CAROLINA PHARMACEUTICAL ASSOCIATION SCHOLARSHIP LOANS. Two in number. Established as scholarships in 1938 by the North Carolina Pharmaceutical Association. In 1954 these grants were converted to non-interest bearing loans.

Pharmacy students are also eligible for scholarships, usually valued at $175 per year, administered by the University Scholarship Committee. The application form should be obtained from the Director of Student Financial Aid and submitted before March 15.

PHILOSOPHY

THE GRAHAM KENAN FELLOWSHIP IN PHILOSOPHY. (Established in 1921 by Mrs. Graham Kenan.) This annual fellowship, established in memory of an alumnus and trustee of the University, is supported by the income from an endowment of $25,000.

THE WILLIAMS FELLOWSHIPS IN PHILOSOPHY. (Established in 1941.) Established by the will of Dr. Henry Horace Williams in honor of his mother, Mary Taylor Williams, and his wife, Bertha Colton Williams. The number, value, and recipients of these fellowships are decided each year by the professors in the Department of Philosophy of the University.

PHYSICAL THERAPY

THE JAMES KIRKPATRICK NORFLEET SCHOLARSHIPS. (Established in 1958.) Four scholarships were established from funds donated to the School of Medicine by Miss Gizelle Norfleet, of Winston-Salem, North

Carolina. Two, in the amount of $200 each, are available to juniors, and two, in the amount of $300 each, are available to seniors. Awards are made on the basis of scholarship and need to students enrolled in the Curriculum in Physical Therapy.

RADIO-TELEVISION

THE WBT-WBTV SCHOLARSHIPS OF THE JEFFERSON STANDARD FOUNDATION. (Established in 1954.) Valued at $5,000 ($1,250 annually), these scholarships were established by the Jefferson Standard Foundation to encourage worthy students to obtain college training for a career in radio or television broadcasting. The awards are open to residents of North and South Carolina who are graduates of accredited high schools or preparatory schools. They are renewable over a four-year period providing satisfactory academic progress is demonstrated. Criteria for selection are academic ability and achievement, sound character, and manifest interest in radio and television as an occupation.

SOCIOLOGY

THE HOWARD W. ODUM MEMORIAL FELLOWSHIP. (Established in 1960.) The Howard W. Odum Memorial Graduate Fellowship in Sociology is awarded each year by a faculty committee of the Department of Sociology and Anthropology. The award of $400 is nonservice in character. The principal sum of the fellowship, honoring the late Dr. Howard W. Odum, was raised by contributions from students, colleagues, and friends of Dr. Odum. The recipient is known as the Howard W. Odum Fellow.

LOAN FUNDS

THE DEEMS FUND. (Established in 1879.) A fund of $600 was established by the Reverend Charles Force Deems, D.D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881, the fund was enlarged by a gift of $10,000 from Mr. William H. Vanderbilt.

THE MARTIN FUND. Interest from this fund, established by the bequest of Mr. Thomas D. Martin, of Raleigh, became available for loans during the session of 1908-1909.

THE HOGUE FUND. Interest from a fund of $4,000 established by the Reverend R. W. Hogue of Baltimore, Maryland, is to be loaned to worthy students in the University.

THE HEWITT FUND. Interest from a fund of $18,700, established in 1916 by the bequest of Mr. Joseph Henry Hewitt, of Princess Anne County, Virginia, will be used for loans to "needy and deserving students" of the University.

THE HOLT FUND. The principal of a fund of $10,000, established by Mr. Lawrence S. Holt, Jr., of Burlington, North Carolina, is to be loaned to "worthy and needy students of the University." In addition, four scholarships in the University have been set up from the income of the fund.

THE VICTOR S. BRYANT FUND. The principal and interest of a fund of $7,500, established by the bequest of Mr. Victor S. Bryant, of Durham, North Carolina, will be used for loans to "worthy and needy young men" at the University.

THE SEELY FUND. A fund of $1,000 has been established by Mr. F. L. Seely, of Asheville, North Carolina, the principal of which is to be loaned to worthy and needy students, and the income therefrom to be added to the principal.

THE E. S. BLACKWOOD MEMORIAL LOAN FUND was created by bequest of Miss Katherine B. Blackwood, of New York City, and consists of $10,000 "to be used as a loan fund for needy students." This fund is administered in the same manner as the Deems Fund.

THE J. E. LEAR FUND. This fund of $5,244 became available in 1924. The fund was the result of installation work done by the senior class in electrical engineering under the supervision of Professor J. E. Lear.

THE A. B. ANDREWS LOAN FUND. In May 1925, the five children of the late Colonel A. B. Andrews (William J. Andrews, Class of 1891; Alexander B. Andrews, Class of 1893; Mrs. W. M. Marks; John H. Andrews, Class of 1897; and Graham H. Andrews, Class of 1903) established a fund of $2,500 of which the principal and interest are to be loaned to worthy students. This fund has been increased to $4,750 through subsequent gifts from Mr. Alexander B. Andrews, of Raleigh, North Carolina. The A. B. Andrews Loan Fund is administered as are other loan funds from the University and is established as a memorial to Colonel A. B. Andrews, a noted railroad builder in North Carolina and a Trustee of the University. It is requested by the donors that assistance from this fund be rendered first to students from those counties of North Carolina in which Colonel Andrews built railroads and second to students from those counties through which lines of the S.A.L., Norfolk-Southern, and Southern Railway systems run.

THE JOSEPH E. POGUE LOAN FUND. This fund of $1,000 was presented to the University in April 1930, by Mrs. Joseph E. Pogue as a memorial to her husband, the late Mr. Joseph E. Pogue. The principal and interest are to be loaned to deserving students.

THE EDMONDS LOAN FUND. This fund of a little over $800 has been set up by the Class of 1910 as a memorial to W. R. Edmonds, a member of the class.

GRAIL LOAN FUND. In June 1930, the Order of the Grail, an undergraduate organization at the University of North Carolina, gave $1,400 to be known as the Grail Loan Fund. Additional gifts by the Order of the Grail and income from interest have increased the fund to $3,000. The principal of this fund is loaned to worthy students and the income is used to support the Bernard-Grail Scholarships.

THE ALDEN JOSEPH BLETHEN III, MEMORIAL LENDING FUND. During the fall of 1930, Colonel C. B. Blethen, of Seattle, Washington, gave $2,000 to be known as the Alden Joseph Blethen III, Memorial Lending Fund. This he did as a memorial to his son, A. J. Blethen III, a member of the Class of 1934. The principal of the fund is to be loaned to deserving students.

THE ROCKINGHAM COUNTY ALUMNI LOAN FUND. In 1932, a fund of $713.32 was advanced by the Rockingham County Alumni Association. It is subject to recall by the Association.

THE RHO CHI LOAN FUND. The Xi Chapter of the Rho Chi Honorary Society has established a loan fund for deserving students of pharmacy.

THE CHARLES L. COON MEMORIAL LOAN FUND. A fund of $1,415 established by the administrators of the Charles L. Coon Memorial Loan Fund of Wilson, North Carolina, in September 1934. The funds to be loaned to graduates of the Charles L. Coon High School of Wilson, North Carolina, upon the written approval of the school's superintendent and the chairman of the Board of Trustees.

THE JOHN B. WEAVER LOAN FUND. In 1937, a fund of $1,915 was established by Dr. William Jackson Weaver of Asheville, North Carolina, in memory of his father, John B. Weaver. It is administered under the same terms as the Deems Fund.

THE SHERMAN LOAN FUND. A fund established in 1939 by Dr. Joshua Sherman, Class of 1906, of Lancaster, Pennsylvania, and amounting at present to $1,419.28. The fund is available for student loans on the usual terms.

THE MAJOR DAVID C. AND MARTHA REEVES EDWARDS LOAN FUND. A fund established June 10, 1940, by a gift of $1,000 as a memorial to a father and mother of Alleghany County who educated four sons at the University. Donors have requested that assistance from this fund be rendered first to relatives, second to students from Alleghany County, and third to other students from North Carolina and states adjacent to North Carolina. In any case, however, the recipient of the loan must comply with all requirements imposed by the University Loan Fund Committee.

THE WINSTON-SALEM DRUGGISTS' LOAN FUND. Organized Druggists of Winston-Salem in 1942 gave $200 to be loaned to worthy students of pharmacy.

THE LOAN FUND OF THE CLASS OF 1942. The class gift of $350 in 1942 was set up as a loan fund under the usual terms for the administration of such funds.

THE DAVID ANDERSON ALLEN FUND. Established in 1945 by the wife (Jenny Ann Efird Allen) and children (Paul Haywood and Mary Ann) of David Anderson Allen, who graduated with the Class of 1938. Lieutenant Allen died in the service of his country on March 19, 1945, on the *U. S. S. Franklin*. The income from this fund is available as a loan or gift to deserving students at the University from Mecklenburg County, North Carolina.

THE DR. JOHN R. EDWARDS LOAN FUND. This fund was established in 1945 by a gift of $1,500 to the University by Dr. B. O. Edwards, of Asheville, North Carolina, as a memorial to his son, the late Dr. John R. Edwards, a graduate of the University. This amount was later supplemented by an additional $1,500 from Dr. Edwards' daughter, Mrs. Foster Mackenzie, making the total fund $3,000. The principal and interest are to be loaned to deserving students, with preference given to North Carolina premedical students.

THE OLIVIA DUNN STUDENT LOAN FUND. A fund of approximately $25,000 established in 1946 at the bequest of Mary Olivia (Birdie) Dunn of Wake County as a memorial to her mother, Olivia Godwin Dunn. The fund is to be loaned to worthy students in accordance with the usual terms of the University Student Loan Funds.

THE SALLIE A. HUNT DENTAL MEMORIAL LOAN FUND. This fund was established in 1950 by a gift to the University from Dr. R. Fred Hunt of Rocky Mount, North Carolina, as a memorial to his mother, the late Sallie A. Hunt, who was born in Nash County. The principal and interest are to be loaned to deserving North Carolina junior and senior (preferably senior) dental students.

THE WOODWARD-FLEMING LOAN FUND. This fund, founded in 1951, is designed to encourage advanced training and educational experiences for dental teachers or prospective teachers of dentistry at the University of North Carolina, and also, to provide a source of loans for worthy students of dentistry. The fund is made possible through a gift from Mr. John W. Fleming and Mr. Robert Woodward, of the Fleming Dental Laboratory and the Woodward Prosthetic Company, respectively.

THE JESSE KNIGHT DOZIER LOAN FUND. A fund of approximately $135,000 established in 1954 by Dr. Jesse Knight Dozier, native of Tarboro, North Carolina, Class of 1899, and resident of Pasadena, California, at the time of his death in 1954. Dr. Dozier's bequest enables the University to offer major loan fund assistance on very favorable terms to public school teachers and those planning to teach, who are registered in the University's School of Education while using aid from this loan fund.

THE WILLIAM T. HOLLAND MEMORIAL LOAN FUND. Income and principal from this fund of $37,289.19 established in 1954 by Mrs. Byrd T. Holland of Charlotte, North Carolina, as a memorial to her husband, William T. Holland, to be used for loans to needy and deserving boys attending the University. Students majoring in geology shall be given first consideration.

THE WILLIAM A. WHITAKER, SR., AND ANNA BITTING WHITAKER LOAN FUND. A fund of $5,000 established in 1955 by William A. Whitaker, Jr., of Winston-Salem, North Carolina and New York City, as a memorial to his father and mother, who educated four sons at the University. The income from the fund is to be used for loans to worthy students.

THE JAMES S. TIPPETT MEMORIAL LOAN FUND. This fund of approximately $1,200 was presented to the University in 1959 by friends and former students as a memorial to the late Professor Tippett of the School of Education. Money from this fund is loaned in small sums on an emergency basis to students in elementary education. These loans require no interest for the first ninety days; thereafter, the interest rate is 3 per cent.

THE EMERGENCY STUDENT LOAN FUND

In the winter and spring of 1932, the University faced a genuine emergency growing out of an announced reduction of state appropriations by 30 per cent, and the fact that between five hundred and seven hundred students were without funds with which to continue their schooling. When this situation was presented by President Graham, students ($2,057.14), faculty ($2,035.38), and people and

community organizations of Chapel Hill ($970.22), various chapters of the D.A.R., U.D.C., and other committees of women, began building a student loan fund. Alumni and friends of the University everywhere contributed to raise the total of new loan resources to $109,000, known collectively as "The Emergency Student Loan Fund." The portions of that fund which for some appropriate reason were separately established are listed below. Unless otherwise indicated, the funds are loaned on the same terms as is the Deems Fund.

THE W. C. COKER LOAN FUND. A fund of $500 established February 2, 1932, by Dr. W. C. Coker, head of the Department of Botany of the University.

THE JESSIE KENAN WISE LOAN FUNDS. A loan fund of $25,000 established February 4, 1932, by Mrs. Jessie Kenan Wise, of Wilmington, North Carolina, and another loan fund of $47,000 in securities, the income from which may be loaned to students immediately, and the principal of which may be similarly used when made available through sale of the securities as opportunity for sale on favorable terms may arise.

THE BURTON CRAIGE LOAN FUND. A fund of $1,000 established February 6, 1932, by Mr. Burton Craige, Class of 1897, of Winston-Salem, North Carolina.

THE BLAIR LOAN FUND. A fund of $500 established March 2, 1932, by the Honorable David H. Blair, Class of 1898, and Mrs. David H. Blair, of Washington, D. C.

THE SARAH WATTS MORRISON LOAN FUND. A fund of $1,000 established March 4, 1932, by Mrs. Sarah Watts Morrison of Durham and Charlotte, North Carolina.

THE SARAH GRAHAM KENAN LOAN FUND. A fund of $1,000 established March 7, 1932, by Mrs. Sarah G. Kenan, of Wilmington, North Carolina, to be awarded according to the designation of the donor.

THE MILO M. PENDLETON LOAN FUND. A fund of $1,000 established March 15, 1932, by Mrs. Katharine Pendleton Arrington as a memorial to her brother, Milo M. Pendleton, of the Pharmacy Class of 1902.

THE RICHMOND, VIRGINIA, ALUMNI ASSOCIATION LOAN FUND. A fund of $320 given in 1932 by the organization named above with the request that it be set so as to receive annual additions from the donors.

THE EDRINGTON SPENCER PENN AND CHARLES ASHBY PENN, JR., LOAN FUND. A fund of $1,000 established April 14, 1932, by Mrs. Charles Ashby Penn, of Reidsville, North Carolina.

The C. W. Toms Loan Fund. A fund of $1,000 established May 19, 1932, by Mr. C. W. Toms, Class of 1889, of New York City, in memory of his son, the late George Newby Toms, Class of 1928.

The Margaret McCall Carmichael Loan Fund. On May 25, 1932, a fund of $1,000 was established by W. D. Carmichael, Class of 1897.

The Annie Louise Watts Hill Loan Fund. A fund of $1,000 established by Mr. John Sprunt Hill, of Durham, North Carolina, on June 4, 1932, as a memorial to his wife.

The George Basley Hiss Loan Fund. A fund of $10,000 established in 1932 by Mrs. Bertha T. Hiss, of Charlotte, North Carolina, in memory of her husband, George Basley Hiss.

NATIONAL DEFENSE STUDENT LOAN FUND

The Congress of the U. S., through the National Defense Education Act of 1958, appropriated funds for student loans. These funds are distributed to participating institutions on a cooperative plan. Loans are made according to regulations prescribed by the Congress. The educational institutions are responsible for making and collecting the loans. Each borrower must be a full-time student in need of financial assistance, and must be capable of maintaining a good scholastic standing. Special consideration will be given to students with superior academic background who plan to teach in elementary or secondary schools, and students who indicate superior capacity in science, mathematics, engineering, or a modern foreign language.

HONOR AND RECOGNITION SOCIETIES

Phi Beta Kappa, national scholarship fraternity was founded at the College of William and Mary in 1776. Alpha of North Carolina was established here in 1904. Juniors and seniors who meet the requirements in scholastic achievement and character are invited to become members.

Sigma Xi, founded at Cornell University in 1886 for the purpose of encouraging original investigation in science, has a chapter here established in 1920. Membership is contingent upon evidence of excellence in research in one of the sciences. Advanced undergraduates and graduates who show promise in scientific research may be elected to associate membership, to be promoted to full membership later if deemed worthy.

Phi Eta Sigma, national freshman scholarship fraternity for men, was founded at the University of Illinois in 1923 to encourage and reward high scholastic attainment and thus promote good study habits

early in college life. The chapter here was established in 1947. The freshman men who make at least half *A*'s and the rest *B*'s their first semester or their first two semesters are eligible for membership.

BETA GAMMA SIGMA, national scholastic honor society for students in commerce and business administration, was founded in 1913 by the union of three local societies at the universities of Wisconsin, California, and Illinois. Its Alpha of North Carolina Chapter was established here in 1933. Juniors and seniors in the School of Business Administration who achieve sufficiently high scholastic standing become eligible for membership.

RHO CHI was founded at the University of Michigan in 1922 to encourage high scholastic achievement and fellowship among students in pharmacy. Its Xi Chapter was established here in 1929, and students in the School of Pharmacy who qualify in scholarship, character, personality, and leadership are elected to membership.

ORDER OF THE COIF, honor society for men in schools of law, was founded at the University of Illinois in 1902. Its chapter here was established in 1928. Students of sufficiently high scholastic standing at graduation in the School of Law are elected to membership.

ORDER OF THE GOLDEN FLEECE, senior honor society for men, was founded here in 1903. It selects each year from the men in the junior class, or above, those considered to possess the highest qualifications in character, ability, achievement, and leadership.

THE VALKYRIES, senior honorary organization for women, recognizes and honors the women students most outstanding in character and achievement, the number selected each year not exceeding two per cent of the women enrolled. It was established here in 1941.

ORDER OF THE GRAIL was founded here in 1920 as an honorary service organization. Each year thirteen oustanding rising junior and senior men are honored with membership, the number almost evenly divided between fraternity and non-fraternity men. Its purpose is to help provide social life to all students by sponsoring informal script dances, to award scholarships to needy and deserving students, and to serve the campus generally.

ORDER OF THE OLD WELL was founded here in 1949 for the purpose of recognizing and honoring campus service and accomplishment on a point basis. The Golden Fleece, the Valkyries, and the Grail select their honorees on an intangible appraisal basis; the Old Well honors those juniors and seniors, both men and women, who achieve at least a certain minimum number of points—all activities, such as scholarship, student government, athletics, forensics, publications, dramatics, music, being evaluated by a proper distribution of points.

AMPHOTEROTHEN, an honorary organization of thirteen junior and senior men, was founded here in 1912 for the purpose of training in extemporaneous speaking. It became temporarily inactive in 1947 and was reactivated during the winter quarter of 1952.

ALPHA EPSILON DELTA, premedical honor society, was founded at the University of Alabama in 1926. Its Beta of North Carolina Chapter was established here in 1936. Its object is to encourage excellence in scholarship and to promote cooperation and common interests among the premedical students.

ALPHA KAPPA DELTA, sociology recognition society, was founded at the University of Southern California in 1920 for the purpose of promoting scholarship and research among the advanced students in sociology. The Alpha of North Carolina Chapter was established here in 1931.

ALPHA PHI OMEGA, national campus service fraternity, was founded at Lafayette College in 1925. Its purpose is to bind together college men in the fellowship of the Scout Oath and Law, to develop friendship, and to promote service to humanity. The Rho Chapter was established here in 1930.

DELTA PHI ALPHA, recognition society for students of German, was founded at Wofford College in 1929, its Beta Rho Chapter being established here in 1938. It aims to promote interest in the language, literature, and culture of German-speaking people.

KAPPA TAU ALPHA, national society dedicated to the recognition and promotion of scholarship in the field of journalism, founded at the University of Missouri in 1910, granted a charter to the University of North Carolina at Chapel Hill on May 17, 1955. The society elects approximately ten per cent of the journalism student body to membership. Eligibility is determined entirely on academic standing in journalism courses and in all other courses taken on the Chapel Hill campus.

PHI ALPHA THETA, national honor society for recognizing excellence in the study of history, was founded at the University of Arkansas in 1921. Eligibility for membership, both on the undergraduate and graduate levels, is based on superior scholastic achievement. The Delta Pi Chapter was established here in 1952.

PHI DELTA KAPPA is a national society for the recognition of outstanding undergraduate and graduate men in the field of professional education. The Beta Theta Chapter was established here in 1945. It promotes research, service, and leadership in education.

PI DELTA PHI, recognition society for men and women students who have attained honor in the study of French, was founded at the University of California in Berkeley in 1906 for the purpose of promoting the study of French and French culture in America. Its Beta Alpha Chapter was established here in 1952.

PI MU EPSILON, recognition society for students of mathematics, grew out of the Mathematics Club at Syracuse University. It was incorporated under the laws of New York in 1914. Its North Carolina Beta Chapter was established here in 1948. The purpose of the society is to promote interest in the study of undergraduate and graduate mathematics.

PI SIGMA ALPHA, a national honor society for students in political science, established a chapter here in 1949. It was founded at the University of Texas in 1920. Eligibility for membership is based on high scholastic achievement in the subject.

SCABBARD AND BLADE, national military society, has as its qualifications for membership good scholarship, leadership, initiative, and character. The organization was founded at the University of Wisconsin in 1904; the chapter was established here in 1949.

SIGMA GAMMA EPSILON, national honor society for students in the earth sciences, was founded at the University of Kansas in 1915. High scholarship and active interest in one of these fields are requirements for membership. The Alpha Alpha Chapter of the fraternity was established here in 1931.

BETA PHI MU, international scholastic honorary fraternity in library science, was founded at the University of Illinois in 1948. Epsilon Chapter was established here in 1958. Eligibility for membership is based on high scholastic achievement in library science.

MEDALS AND PRIZES

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Martha ("Pattie") Person and Mary Sutherland Mangum, late of Orange County, in memory of their father, Willie Person Mangum, Class of 1815, is continued by the family of one of his descendants, Mr. Willie P. Mangum Turner of Winston-Salem, North Carolina, Class of 1900. This medal is awarded to that member of the senior class who, in the opinion of a group of judges, gives the most excellent oration at an annual oratorical contest.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of $25.00 is offered annually to that member of the sophomore class who shall present the best rendering into English of selected passages of Greek not previously read.

THE ARCHIBALD HENDERSON PRIZE IN MATHEMATICS, formerly THE WILLIAM CAIN PRIZE. (Established in 1908.) A gold medal is given annually to the undergraduate student judged by the Department of Mathematics to have demonstrated a high order of mathematical ability and shown the greatest promise of originality in the field.

THE MILDRED WILLIAMS BUCHAN PRIZE. (Established in 1920.) A fund of $1,000 was given by Mr. Edward Robertson Buchan in memory of his wife. The income of this fund is to provide a prize in the Department of Philosophy.

THE PATTERSON MEDAL. (Established in 1924.) A gold medal is offered annually by Dr. Joseph F. Patterson in memory of his brother, John Durant Patterson. This medal is awarded for general excellence in athletics to a student selected by a special committee.

THE BUXTON WILLIAMS HUNTER MEDAL IN PHARMACY. A gold medal is offered annually by Mr. D. R. Davis of Williamston, in honor of his uncle, Mr. Buxton Williams Hunter, of New Bern, and is awarded to that student who has shown outstanding qualities of leadership and scholarship and who has done conspicuous work in the Student Branch of the N.C.P.A.

THE LEHN AND FINK GOLD MEDAL IN PHARMACY. (Established in 1924.) This medal is given annually by Lehn and Fink of New York City, and is awarded to the student in the graduating class making the highest average during the four years of study.

THE CHI OMEGA PRIZE IN SOCIOLOGY. (Established in 1927.) A prize of $25.00 is awarded by the local chapter of the Chi Omega Fraternity to the graduating woman student majoring in sociology who, in the judgment of a committee of the Department of Sociology and Anthropology, best exemplifies high scholarship, leadership, and promise of productive citizenship.

THE E. CARRINGTON SMITH AWARDS. (Established in 1928.) A trophy is presented annually in football and in basketball to the most valuable player in each sport possessing qualities of leadership, scholarship, and sportsmanship. The recipient is elected by the squad members in the respective sports.

THE ALGERNON SYDNEY SULLIVAN AWARD. (Established in 1928.) To be bestowed annually upon one man and one woman of the graduating class who have best demonstrated an attitude of unselfish interest in the welfare of their fellow man. The award shall not be based upon scholastic, athletic, or other collegiate attainment.

THE DELTA SIGMA PI AWARD. (Established in 1931.) This award is given annually to the senior in the School of Business Administration who has the highest academic average.

THE ROLAND HOLT CUP IN PLAYWRITING. (Established in 1936 by Mrs. Roland Holt in memory of her husband.) This award is made each year by the Department of Dramatic Art for excellence in playwriting.

THE DICK JAMERSON SWIMMING AWARD. (Established in 1940.) This award is made annually to the freshman and senior who demonstrate excellence in scholarship, leadership, swimming, and team morale.

THE JOHN JOHNSTON PARKER, JR., MEDAL FOR UNIQUE LEADERSHIP IN STUDENT GOVERNMENT. (Established in 1941.) This medal is given annually by the late Judge and Mrs. John J. Parker in memory of their son, John Johnston Parker, Jr., Class of 1937, who rendered distinguished and sacrificial leadership as President of the Student Council in one of the critical years in the history of Student Government. This medal is awarded by a special committee appointed by the President of the University to that member of the graduating class who has demonstrated most clearly the highest qualities of leadership in perpetuating the spirit of honor and the process of student self-government.

THE PHI BETA KAPPA AWARD. (Established in 1941.) An award amounting to $150 is given annually by the local chapter of Phi Beta Kappa to that member of the rising junior class (eligible for self-help work) who has made the highest scholastic average during his freshman and sophomore years.

THE ERNEST H. ABERNETHY PRIZE IN STUDENT PUBLICATION WORK. Mr. Ernest H. Abernethy, Class of 1922, of Atlanta, Georgia, established in 1941 an annual award of a plaque and $50.00 in cash, which is to be presented to the student who is adjudged by a committee to have done the most distinctive work during the current year in the field of student publications.

THE FOY ROBERSON, JR., MEDAL. A gold medal is offered by the late Dr. Foy Roberson and Mrs. Roberson in memory of their son, Foy, Jr., Class of 1940, varsity basketball 1939 and 1940; Second Lieutenant, Army Air Corps; killed in collision at sea, December, 1941. Awarded annually for the chief contribution to team morale in basketball.

THE JOSEPHUS DANIELS SCHOLARSHIP MEDAL. (Established in 1941.) A gift from the family of the Honorable Josephus Daniels to be invested and the income used to provide annually the Josephus Daniels Scholarship Medal for the University of North Carolina unit of the Naval Reserve Officers Training Corps.

THE FRANCIS P. VENABLE AWARD. (This was originally the Alpha Chi Sigma Prize in Chemistry, established in 1942.) A medal given annually by the local chapter of Alpha Chi Sigma Fraternity to the undergraduate student of chemistry selected by the faculty as best exemplifying high scholarship, leadership, and personality.

THE WILLIAM CHAMBERS COKER AWARD IN SCIENCE. (Established in 1948.) A sum of $50.00 is awarded annually by the Elisha Mitchell Scientific Society to the graduate student whose thesis or dissertation shall be adjudged the best of those submitted for a graduate degree in the Science Division.

THE ALPHA KAPPA PSI SCHOLARSHIP KEY. Alpha Tau Chapter of Alpha Kappa Psi, a professional fraternity in commerce, awards annually the Alpha Kappa Psi scholarship key to the male senior student pursuing a degree in the School of Business Administration who has attained the highest scholastic average for three years of collegiate work in this University.

THE E. J. EVANS TRACK AWARD. (Established in 1949.) A permanent gold cup honoring the outstanding senior track athlete has been established by Mr. E. J. Evans, of Durham, North Carolina, and is kept in the University's trophy case. A special plaque is given each year to the student winning this honor.

THE JOHN BISHOP MEDAL. (Established in 1952.) This medal was established as a Revolutionary Memorial in honor of John Bishop (1740-1815), who served from Halifax County, North Carolina, in the Continental Army. It has been made available by a gift from one of his direct descendants of the fifth generation, Mr. Charles B. Bishop, Class of 1925, of New York City, and is to be given annually to a member of the Naval ROTC of the sophomore or junior class for efficiency in marksmanship.

THE JESSIE MAI PETTY AWARD. (Established in 1953.) Mr. James B. Petty, Class of 1943, of Gastonia, North Carolina, established this award in honor of his mother. It consists of a book, or set of books, and a cash donation, the total value at present being set at $100. It is presented annually to the junior who at the time of his election to Phi Beta Kappa has the highest scholastic average in his class.

THE BENJAMIN SOLOMON MEMORIAL AWARD. (Established in 1953.) A grant-in-aid and a trophy is offered annually by Mr. and Mrs. Sam Planer, of Gastonia, North Carolina, to the member of the varsity wrestling team who has best demonstrated the qualities of character and personality which are developed by his participation in wrestling.

THE JANE CRAIGE GRAY MEMORIAL AWARD. (Established in 1954.) This award is to be presented annually by Beta Chi Chapter of Kappa

Delta, recognizing that woman of the junior class who has proved herself outstanding in character, scholarship, and leadership. The award was established in memory of Jane Craige Gray.

THE IRENE F. LEE CUP AWARD. (Established in 1955.) The late Mrs. Irene F. Lee, of Chapel Hill, North Carolina, who served as hostess and counselor in the Cornelia Phillips Spencer Hall from 1925 to 1948, established this annual award to honor that senior woman adjudged outstanding in character, leadership, and scholarship.

THE GEORGE LIVAS AWARD. (Established in 1956 by the senior class of the School of Nursing and friends of the late George T. Livas.) This is a monetary award presented each year to the member of the senior class of the School of Nursing who meets the specified qualifications of scholarship, leadership, and strength of character. The recipient is to be chosen by the graduating class of the School of Nursing and approved by the Dean of the School of Nursing or her delegate.

THE CAROLINA WOMEN'S COUNCIL AWARD. (Established in 1958.) A silver tray is presented annually by the Carolina Women's Council to a senior woman who for two years has served her dormitory and the University with diligence, faithfulness, and loyalty, and has also proved herself to be outstanding in character, personality, leadership, and scholarship.

DEGREES CONFERRED

DEGREES CONFERRED AUGUST 30, 1960

BACHELOR OF ARTS

George Shuford Abernethy, Jr.
Robert Lloyd Abernethy III
George Bryan Adams, Jr.
Carlton Ward Allegood
Sarah Bahous Allen
William James Bailey
Julius Edmond Banzet III
Sara Ann Barber
Louise Kennamer Barnett
Marshall Howard Baucom
Richard Edward Bird
James Thomas Black
Anthony Patricia Brady
Richard Clarence Brake III
George Carlton Bridgers
Gail Anthony Brittain
Floyd Devon Brock
Conrad Livingston Brown, Jr.
Edward Porcher Brunson, Jr.
Howard McKenzie Bryant, Jr.
David Holman Buell
Mary Harris Butterworth
Boyd Harvey Cannon
Ruth Elizabeth Carpenter
James Leo Carr
Samuel Macon Carrington, Jr.
(with Honors in French)
Edward Willis Carter
James Larry Carter
Paul Jones Chambers III
Robert Kenneth Cofod
Robert James Covington
Olga Frisard Crabtree
Oscar William Cranz, Jr.
Richard Maurice Dailey, Jr.
Julia Cox Davis
Dana Harris Dixon
William Gayle Dorroh
James Aire Dosher
Donald Larry Dotson
Rosalind Johnson Earle
Joyce Virgil Early, Jr.
Alexander Farnham Ehret
Arthur Whitfield Fountain
Larry Gene Frederick
Michiko Fujii
Larry Mills Giles
William Frank Giles
Dorothy June Golann
Donald Dupree Haithcock
James Madison Harper III
Margaret Alice Harry
Marion Anne Hays
William Cochran Highsmith, Jr.
John Sessions Hill
Allan Wilson Hobbs II
Thomas Patrick Inman
Larry Wilson Johnson
William Joseph King
Charles Duffy Koonce, Jr.
Jacob Donnell Lassiter
Claudia Earle Lipscomb
Jerry Samuel McDaniel
Henry Stancill Manning, Jr.
Thomas Stanley Marks
Patrick Joseph Marnane
Philip Baxter Mauldin
Rosemary Elizabeth Meyer
Josephine Anne Mills
Martha Jane Moretz
Jahaila Morris
Rebecca Dare Morris
Robert Crocker Murray
Ann Shutt Nash
Sidney Thomas Noell, Jr.
Julia Elizabeth Parks
Frederick Hubert Paschal
Bruce Gilbert Pearson
David Sutton Phelps
Alvah Tucker Renfrow
Robert Maurice Rhodes
Marcia Wade Sampson
Mary Sue Short
Alvin Keith Smith
Kirby Hart Smith, Jr.
Wayne Reece Smith
Deanna Ruth Spake
James Massey Sparger
Richard Curry Stoker
Charles Bailey Stonestreet

Claude Benson Thomas, Jr.
Edwin Scott Thomas
Edward Eugene Todd III
Sandra Jean Trotman
Natalie Tsonev
Donald Wayne Wade
James K. Ward, Jr.
Eli Anderson Warren
Ronnie Mason Waters
Harvey Allison Wilkinson
James Lewis Williams
John O'Donnell Williams
Larry Howard Williams
Mary Carrington Wilson
Robert Mathewson Wright
Cecil Moore Yarbrough, Jr.
Rudolf Theodore Zarzar
Donald Richard Zeiller

BACHELOR OF SCIENCE IN DENTISTRY

William Robert Caviness

BACHELOR OF SCIENCE IN INDUSTRIAL RELATIONS

Edward Franklin Byrd
Raymond Lee Collins, Jr.
Clarence Jackson Crutchfield, Jr.
Leon Algernon Dunn, Jr.
Charles Manning Furman III
Claude O'Briant Harris, Jr.
Thomas Effingham Howard
John Divine McGee II
Owen Boyd Ross
Robert Finley Rowe
Carl Isaac Shore, Jr.

BACHELOR OF SCIENCE IN PHYSICS

Frederick Nelson Young, Jr.

BACHELOR OF SCIENCE IN PUBLIC HEALTH NURSING

Julia Henrietta (Kolkhorst) Allen
Barbara Burkhardt
Inez Rambo Constant
Ruth Anderson Gwyn
Anna Mae Leeson
Grace Thomas McDaid
Dorothy Mae Mayse
Edna Crandall Rundgren

BACHELOR OF ARTS IN EDUCATION

Thomas Earl Allen, Jr.
John Harding Barefoot
Robert John Barnard
Marie Page Barnes
Dorothy Gaye Carter
Judith Rominger Casey
Benjamin Kenneth Collins
Susan Elizabeth Davis
Roland William Doepner, Jr.
Mary Watson Duffie
Katherine Pedrick Farrior
Catherine Fraser Hebert
Donald Conrad Johnson
Mary Ellen McFadyen
Patrick Wilson Midgette
Martha Gene Arnold Moore
Sarah Haile Mustard
Harold Gordon Myers
Paula Dean Quick
Charles Ben Sproles
Ann Whitfield Summers
Gail Harding Wilson

BACHELOR OF ARTS IN JOURNALISM

Deanna Lee Daniels
James W. Hardin
Mary Alice Rowlette

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Joseph Edward Adkins, Jr.
Robert David Asher, Jr.
William Bryan Atkinson
John Dewey Bradsher, Jr.
Kenneth Marvin Burke
Claude Francis Burnham
James Franklin Carpenter
Max Cline Carpenter
Robert Andrew Connery
John Everett Culp
Stuart Andrew Golley
Carl Lutz Hawn
Claude Harris Herndon
John Wesley Kennedy, Jr.
Jerry Lewis King
Anthony Joseph Lampron, Sr.
Arnold Harris Leder
Billy Sanford Lee
Joseph Henry Loughran
Jack Harrington McMillan
Allan Stoddart Meade
Aubrey Phillip Miller
Rea Franklin Miller, Jr.
Roy Neal Moore, Jr.
Walter Theo Mottinger III
Robert Newell Myse
Charles Benjamin Newsome
William Cecil Perry
Russell Irving Quick
Monnie Ray Shaffer
Leo Franklin Simpson, Jr.
Robert Bland Smith, Jr.
Robert Donald Spencer
John Herod Stanley
William Harley Stepp, Jr.
Paul Reid Williams
Frank Amalphus Wilson

BACHELOR OF SCIENCE IN DENTAL HYGIENE

Lundee Williams Amos

BACHELOR OF LAWS

James Floyd Ammons
Ned Arthur Beeker
Edgar Lee Edens
Duane Clarence Johnson, Jr.
Paul Donald Kaufman
Robert Cleveland Llewellyn
Martin Coleman Pannell
Walter Travis Porter III

CERTIFICATE IN PUBLIC HEALTH NURSING

Marjorie Harriet Brodie
Mary Blanchard Farrior
Ruth Marie Griffin
Bonlyn Goodwin Hall
Christine Lyde Harper
Mary Lou Hipp
Jacqueline Joy Jackson
Joy A. Wilson Kirby
Guyda Belle Lawrence
Georgia Levonda Duncan McDaniel
Floreine Ashmore Marshall
Mary Edna Martin
Adalgisa Vieira Matos
Martha Anne Neighbors

MASTER OF SCIENCE IN PUBLIC HEALTH

William Milton Bazemore
Martha Perdue Peoples
Julia McConnell Snyder

MASTER OF PUBLIC HEALTH

Jeanne Kerr Alexander
Thomas Aubrey Bowen
Margaret Vickery Camp
Elizabeth Carlton
Edna Carolyn Alligood Chandler
Aida Kayed Cotran
Virginia Dudley Durrett
Victor Best Fuqua
Richard Joseph Grabher
Wiley Thomas Hurt
Nancy Ann Moore
Violet Margaret Ponds
A. Gilbert Reimann
August Shattuck
Betty Jane Shuler
Mary R. E. Snyder
Anna Garst Strickland
Bobby Jean Vanhoy
Rosa Mercedes Vázquez
Ruth Rose Zito

MASTER OF SCIENCE IN SANITARY ENGINEERING

John Alfred Frierson

MASTER OF SOCIAL WORK

Floyd Richard Evans
Ben B. Holeman
Berniece Watkins Limer
Carolyn Winberry Phillips

MASTER OF BUSINESS ADMINISTRATION

Wesley Thompson Andrews, Jr.
Robert Asher Boulware
Frank Davis Griffin
Charles Goddard McClure, Jr.
Frank Elbridge Minter, Jr.
John Franklin Renfro, Jr.
Adin Henry Rucker, Jr.
Herbert Chris Schafer
Osmyn Orlando Tesh, Jr.
Dudley Ray Watson
James Robert Whitney

MASTER OF EDUCATION

Grace Walker Acree
Amanda Adams
Sarah Catherine Adams
Sylvia A. Airheart
Donald Lee Allison
Joyce Carter Antone
Marvin Christian Bader
Maria Reid Baird
Mary Greenlee Beasley
Wilhelmina Williams Bishop
Moses AE Blair
Dorothy Talley Boone
Elizabeth Rial Brawley
Barbara Lucile Bright
Benjamin Timothy Brooks, Jr.
Vivian Prentice Brown
Barbara Rice Bunch
June Wilder Burgess
John Edmund Burke
William Wade Burley
Ronald Clark Butler
June Stone Byrd
Robert Ross Byrd
Hurley W. Campbell
Gary Alvin Clark
Conley Iverson Clarke
Samuel Douglas Compton
William Groce Crowell
Harold Crump
Catherine Shankle Deaton
Jo Ann Drummond
Archie Blair Fairley, Jr.
William Charlton Foil
Albert Dean Fox
Peter Aldro Gillespie
Joseph Godwin
Irving Bittle Goodman
Margaret Anne Goodman
Jeanne Pittman Griffin
Lucy Gulledge
Alfred Snell Hassell
James Dudley Herron
Josephine McCraw Hillsman
John Leland Honeycutt
John Harvey Hooper
Edward Eli Horne
John Henry Hurst
Franklin McGehee Jones
Marylin Odom Karmel
Robert Donald Kennedy
Stanley Harold Lamm
Geraldine McDaniel
Joseph Britt McGinn
Ann Genevieve McLamb
Ann Penney Madison
Tyre Glenn Madison, Jr.
Leighton Wright Martin
Thomas Neill Maultsby
Georgia Lee Morris
Ruth Jeanne Allen Moss
Delores Blanton Murphrey
Patricia Eckert Myers
James Harold Nash
Irene Mary Newby
Elizabeth Dowling Otwell
Bobby Gene Owens
Ernest William Pangle
Blanche Johnson Powers
Norman Andrew Punch
Anthony John Radovich
Julia Marshall Ratliff
Donny Lee Roberts
Margaret Mott Rogers
Nellie Jean Rogers
Joan Delores Sault
Virginia Jones Schafer
James Abraham Sears
Richard David Shaffer
Carolyn Virginia Shepard
James Edwin Gale Sills
Alvis Everette Smith
Barbara Bramlette Smith
Pearl Lane Snell
David Joseph Stewart
Frederick William Taube
Walter John Taylor, Jr.
Dorothy Glenn Teague
William Gordon Tucker, Jr.
Charles Edward Waller
Claude C. Warren
William Jonas Waters, Jr.
Donald Barry Weber
Betty Marie Welch
Robert Elmon West
Sara Moore West
Jo Maxwell Whitley
Joe Woodrow Widenhouse, Jr.
Helen Foard Yount

MASTER OF SCIENCE IN LIBRARY SCIENCE

Sara Storey Batten
Elizabeth Browning Bias
Alice Gicovate
Joanne Jackson Lofquist
Arline Parker Smith

MASTER OF SCIENCE IN NURSING

Bettie Rachel Baise
Margaret Catharine Moore
Ruth Anne Schwab
Rachel Humphries Stevens
Jacqueline Joann Taylor
Barbara Jean Williams

MASTER OF REGIONAL PLANNING

Ali Miludi Amura

MASTER OF MUSIC

Benjy McNeill Haywood

MASTER OF ARTS IN COMMUNICATION

George Walter Brenholtz

MASTER OF SCIENCE

Frederick Davis Benton
Saul Borodkin
James Knox Layton
Robert Colin Smith
Eddie Phillips Stiles

MASTER OF ARTS

John Albert Andrew
Charles Harwood Bowman, Jr.
Joan Marion Brock
Joseph Scott Byrd
John Charles Cochran
Phyllis Singleton Coffey
Ione Walters Coker
Samuel Loraine Cope
David Gale Davis
Wilfred Henry de Cristoforo
Harry Randall Dosher
Elizabeth Evans
Patricia Lynn Everard
James Richard Gross
Mary Rose Hall
Edgar Sheldon Heath
Peter Wallace Heidtmann
Richard Lee Hoffman
Charles Edward Lloyd
Neal Basil Long, Jr.
Roger Lee Marshall
Bruce Romulus Mooney
Mary McCulloch Moore
Charles Richard Nisbet
Floyd Donald Pease
Earl Wendell Phillips
Mary Jane Phillips
Ann Sherlock Polhemus
Alvah Raymond
Gladys Sabeh Salibi
Donald Lewis Shaw
William Francis Simpson, Jr.
Ellis Murrell Smith
Frank Lannom Smith
Douglas Kay Spiegel
Cynthia Julia Thompson
William Michael Weiss
David Marsden Wells
William McKinney White
Nancy Ruth Withers

DOCTOR OF EDUCATION

Ray Brewer Sizemore, *Education*
Thesis: A Study of the Facilities Contained in the Twelve Most Recently Constructed Junior High School Buildings in North Carolina

DOCTOR OF PHILOSOPHY

Ieva Asmyte, *Germanic Languages*
Thesis: Luther's Sermons as a Mirror of His Time

John Hardin Best, *Education*
Thesis: A History of the Development of the Concept of Citizenship Education in America, 1900 to 1950

Lemuel Franklin Blitz, Jr., *Political Science*
Thesis: Urban Renewal: Its Impact on Municipal Administration

John Cripps Brashear, *Political Science*
Thesis: The Impact of Industrialization Upon Politics and Political Institutions of Jefferson County, Tennessee

Margaret Elaine Burgess, *Sociology and Anthropology*
Thesis: The Role of the Minority Community in Desegregation: A Study of Leadership and Power in a Biracial Setting

Paul Ray Burton, *Zoology*
Thesis: A Cytological Study of Gametogenesis in the Frog Lung Fluke, *Haematoloechus Medioplexus* (Trematoda: Plagiorchiidae)

B. J. Campbell, *Psychology*
Thesis: Some Effects of Altering Amount and Type of Reinforcement in Operant Behavior of Preschool Children

Alen Keith Clark, *Chemistry*
Thesis: A Study of the Ferrocenyl Group as a Substituent

Bertram Earl Davis, *Music*
Thesis: The Works of Johannes Vincenet

Alfred Maxey Denton, *Sociology and Anthropology*
Thesis: Some Factors in the Migration of Construction Workers

John Rose Faust, *Political Science*
Thesis: Foreign Policy Positions of Selected States as Expressed in the General Assembly of the United States

Ralph Patterson Forsyth, Jr., *Psychology*
Thesis: MMPI and Demographic Correlates of Post-Hospital Adjustment in Neuropsychiatric Patients

Donald Mahlon Fouse, *Music*
Thesis: The Sacred Music of Giammateo Asola

Efrim Fruchtman, *Music*
Thesis: The Baryton Trios of Tomasni, Burgksteiner, and Neumann

George John Galasso, *Bacteriology*
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A consolidation of the University of North Carolina at Chapel Hill, the State College of Agriculture and Engineering at Raleigh, and the Woman's College of the University of North Carolina at Greensboro with offices at Chapel Hill.

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President*

DONALD BENTON ANDERSON, Ph.D., *Vice-President for Graduate Studies and Research*
ALEXANDER HURLBUTT SHEPARD, JR., A.B., M.A., *Business Officer and Treasurer*
FREDERICK HENRY WEAVER, A.M., *Secretary*

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

WILLIAM BRANTLEY AYCOCK, A.M., J.D., LL.D., *Chancellor*

Officers of the Faculty

GEORGE MILLS HARPER, Ph.D., *Chairman of the Faculty*
ALMONTE CHARLES HOWELL, Ph.D., *Secretary of the Faculty*

ADMINISTRATIVE DIVISIONS OF THE UNIVERSITY

Academic Affairs

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean of College of Arts and Sciences and Dean of the General College*

ARNOLD PERRY, Ed.D., *Dean of School of Education*

NORVAL NEIL LUXON, Ph.D., *Dean of School of Journalism*

MAURICE WENTWORTH LEE, Ph.D., *Dean of School of Business Administration*

HENRY PARKER BRANDIS, JR., A.B., LL.B., LL.D., *Dean of School of Law*

ARTHUR EMIL FINK, Ph.D., *Dean of School of Social Work*

CARLYLE JAMES FRAREY, A.B., B.S., M.S., *Acting Dean of School of Library Science*

ARNOLD KIMSEY KING, Ph.D., *Director of Summer Session*

OLIVER KELLY CORNWELL, M.A., Ed.D. *Director of Physical Education*

RUTH WHITE FINK, A.M., *Director of Physical Education for Women*

JERROLD ORNE, Ph.D., B.S., *University Librarian and Chairman of Library Division*

[1]OLAN VICTOR COOK, A.B. A.B. in L.S., *Associate University Librarian*

CHARLES FREMONT MILNER, A.M. in Ed. *Director of University Extension*

HAROLD DIEDRICH MEYER, A.M., LL.D., R.S.D., L.H.D., *Director of All-University Division of Recreation*

EARL WYNN, M.S., *Director of Communication Center*

JOHN E. YOUNG, M.A., *Director of Television*

[2]ALBERT COATES, A.B., LL.B., *Director of the Institute of Government*

DANIEL O'HAVER PRICE, Ph.D., *Director of The Institute for Research in Social Science*

FEDERICO GUILLERMO GIL, Ph.D., *Director of the Institute of Latin American Studies*

GLEN HAYDON, Ph.D., *Director of Hill Hall of Music*

JOSEPH CURTIS SLOANE, Ph.D., *Director of Ackland Memorial Art Museum*

HARRY ELLERBEE DAVIS, A.B., M.A., *Director of The Carolina Playmakers*

LAMBERT DAVIS, M.A., *Director of The University of North Carolina Press*

ALPHONSE F. CHESTNUT, Ph.D., *Director of The Institute of Fisheries Research*

JOFFRE LANNING COE, Ph.D., *Director of Research Laboratories of Anthropology*

Graduate School

GEORGE ALEXANDER HEARD, Ph.D., *Dean*

JAMES REUBEN GASKIN, Ph.D., *Associate Dean*

WILLIAM FREDERICK LITTLE, Ph.D., *Assistant to the Dean for Research Administration*

Health Affairs

HENRY TOOLE CLARK, JR., M.D., *Administrator*

SYDENHAM BENONI ALEXANDER, M.D., *Assistant Administrator*

GEORGE M. NORWOOD, JR., B.S., *Business Officer*

WALTER REECE BERRYHILL, M.D., Sc.D., *Dean of School of Medicine*

EDWARD GRAFTON MCGAVRAN, M.D., M.P.H., Sc.D., *Dean of School of Public Health*

JOHN CHARLES BRAUER, D.D.S., M.Sc., *Dean of School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of School of Pharmacy*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of School of Nursing*

[3]ROBERT RANDALL CADMUS, M.D., *Director of North Carolina Memorial Hospital*

1. Retired April 7, 1961.
2. Retiring as Director of Institute of Government, July 1, 1962.
3. Retiring as Director of North Carolina Memorial Hospital, July 1, 1962; effective July 1, 1962, Consulting Director of North Carolina Memorial Hospital.

[4]EUGENE BENSON CRAWFORD, JR., S.B., *Director of North Carolina Memorial Hospital*
MYRL LUA-FRANCES EBERT, B.S. in L.S., *Chief Librarian of Division of Health Affairs Library*

Student Affairs

CHARLES HENDERSON, JR., Ph.D., *Dean*

WILLIAM GROVES LONG, A.B., B.D., *Assistant Dean of Student Affairs*
[5]KATHERINE KENNEDY CARMICHAEL, Ph.D., *Dean of Women*
MARTHA DECKER DEBERRY, B.S., *Acting Dean of Women*
CLAUDE CORNELIUS SHOTTS, B.D., *Secretary of YMCA—YWCA and Director of Staff*
ANNE ELLEN QUEEN, A.B., B.D., *Secretary of YMCA-YWCA*
HOWARD DOUGLAS HENRY, B.B.A., *Director of Graham Memorial Student Union*
CHARLES CECIL BERNARD, M.A., *Director of Admissions*
EDWARD MCGAVRAN HEDGPETH, M.D., *Director of Student Health Service*
JAMES EDGAR WADSWORTH, A.M., *Director of Housing*
JOSEPH MORGAN GALLOWAY, B.S., *Director of University Placement Service*
[6]EDWIN SIDNEY LANIER, *Director of Office of Student Financial Aid*
[7]JULIAN DEWEY MASON, A.B., M.A., *Director of Office of Student Financial Aid*
RAYMOND E. STRONG, A.B., *Director of Office of Records and Registration*
WILLIAM DECATUR PERRY, Ed.D., *Director of University Testing Service*
ALMONTE CHARLES HOWELL, Ph.D., *Adviser to Foreign Students*
FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Assistant Adviser to Foreign Students*

Business Affairs

JAMES ARTHUR BRANCH, *Business Manager*

JAMES ALLEN WILLIAMS, A.B., LL.B., *Assistant Business Manager*
[8]HENRY LEE FERGUSON, JR., B.S., C.P.A., *Director of Accounting and Budgets*
[9]VICTOR PRATT BOWLES, B.S. Comm., *Director of Accounting and Budgets*
JOHN SAMUEL BENNETT, B.S., R.E., *Director of Operations*
ROBERT LEE HARDISON, B.S. in Chem., *Director of Purchases and Stores*
FREDERICK BLISS HASKELL, A.B., *Director of Personnel*
[10]LIVINGSTONE BERTRAM ROGERSON, C.P.A., *Manager of Carolina Inn*
HOWARD RAYMOND RITCHIE, *Director of Retail Stores Division*
GEORGE WILLARD PRILLAMAN, B.S., *Manager of Dining Halls*
ANTHONY FRANCIS JENZANO, *Director of The Morehead Building and Planetarium*
ARTHUR NORMAN TUTTLE, JR., B.S., M.F.A., *Director of Planning*

Developmental Affairs

CHARLES MILTON SHAFFER, S.B., Comm., *Director*

WILLIAM THOMAS BOST, JR., A.B. Journ., *Director of Alumni Annual Giving*
ALFRED GUY IVEY, *Director of The University News Bureau*
JOSEPH MARYON SAUNDERS, A.M., *Alumni Secretary*

Athletics

CHARLES PERRY ERICKSON, S.B. in Civ. Eng'g., *Director*

WALTER WAGNER RABB, A.M. in Ed., *Assistant Director*

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4. Effective July 1, 1962.
5. Absent on leave, 1961-1962.
6. Resigned November 1, 1961.
7. Effective February 1, 1962.
8. Resigned April 1, 1962.
9. Effective April 1, 1962.
10. Retiring July 1, 1962.

THE FACULTY COUNCIL

Ex Officio Members

President: WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D.
Vice-President for Graduate Studies and Research: DONALD B. ANDERSON, Ph.D.
Chancellor: WILLIAM B. AYCOCK, B.S., A.M., J.D., LL.D.
Business Manager: J. ARTHUR BRANCH
Dean of the Faculty: JAMES L. GODFREY, Ph.D.
Administrator, Division of Health Affairs: HENRY T. CLARK, JR., A.B., M.D.
Dean of Student Affairs: CHARLES HENDERSON, JR., Ph.D.
Chairman of the Faculty: GEORGE M. HARPER, Ph.D.
Secretary of the Faculty: A. C. HOWELL, Ph.D.
Dean, College of Arts and Sciences: J. CARLYLE SITTERSON, Ph.D.
Dean, Graduate School: G. A. HEARD, Ph.D.
Dean, General College: J. CARLYLE SITTERSON, Ph.D.
Dean, School of Business Administration: MAURICE W. LEE, Ph.D.
Dean, School of Education: H. ARNOLD PERRY, Ed.D.
Dean, School of Journalism: N. N. LUXON, Ph.D.
Dean, School of Law: HENRY P. BRANDIS, JR., A.B., LL.B.
Acting Dean, School of Library Science: CARLYLE J. FRAREY, A.B., B.S.
Dean, School of Social Work: ARTHUR E. FINK, Ph.D.
Dean, School of Dentistry: J. C. BRAUER, A.B., M.Sc., D.D.S.
Dean, School of Medicine: W. R. BERRYHILL, A.B., M.D., Sc.D.
Dean, School of Nursing: ELIZABETH L. KEMBLE, Ed.D.
Dean, School of Pharmacy: E. A. BRECHT, Ph.D.
Dean, School of Public Health: E. G. MCGAVRAN, A.B., M.D., M.P.H., Sc.D.
Chairman, Division of Humanities: C. HUGH HOLMAN, Ph.D.
Chairman, Division of Natural Sciences: WAYNE A. BOWERS, Ph.D.
Chairman, Division of Social Sciences: F. N. CLEAVELAND, Ph.D.
Director of Admissions: CHARLES C. BERNARD, A.B., M.A.
Director of Extension: CHARLES F. MILNER, A.M. in Ed.
Director of Libraries: JERROLD ORNE, Ph.D.
Director of Records and Registration: RAYMOND E. STRONG, A.B.
Director of Summer Session: A. K. KING, Ph.D.
Director of University Health Service: E. MCG. HEDGPETH, A.B., M.D.
Director of University Press: LAMBERT DAVIS, M.A.

Elected Members (arranged alphabetically without regard to rank).

Terms Expire December 31, 1962

DIVISION OF HEALTH AFFAIRS: Loren G. MacKinney.
DIVISION OF HUMANITIES: Sam G. Barnes, L. A. Cotten, J. R. Gaskin, J. C. Sloane, Ransom T. Taylor.
DIVISION OF NATURAL SCIENCES: V. A. Greulach, W. J. Hall, P. S. Hubbard, W. F. Little, C. N. Reilley,[1] W. H. Wheeler.
DIVISION OF SOCIAL SCIENCES: J. H. Blackman, C. E. Bowerman, J. L. Coe, J. C. Ingram, Earle Wallace.

Terms Expire December 31, 1963

DIVISION OF HEALTH AFFAIRS: J. L. Brannon, Mary Vida Cheek, R. E. Coker, Jr., R. H. Sager.
DIVISION OF HUMANITIES: Edgar Alden, H. E. Davis, O. B. Hardison, C. P. Lyons, A. I. Suskin.

1. Absent on leave, fall semester, 1961-1962; replaced for the semester by J. W. Carr.

DIVISION OF NATURAL SCIENCES: A. T. Brauer, C. E. Jenner, J. C. Morrow, J. W. Thibaut.

DIVISION OF SOCIAL SCIENCES: G. A. Barrett, S. B. Baxter, C. O. Cathey, C. M. Foust, Harriet Herring, C. H. Pegg, George L. Simpson, Jr.

Terms Expire December 31, 1964

DIVISION OF HEALTH AFFAIRS: K. M. Brinkhous, M. E. Chapin, S. S. Chipman, Fred W. Ellis, J. B. Graham.

DIVISION OF HUMANITIES: Walter Allen, Jr., J. J. Carter, A. G. Engstrom, R. L. Frautschi, J. G. Kunstmann, Dougald MacMillan, P. G. Phialas, J. M. Schnorrenberg.

DIVISION OF NATURAL SCIENCES: D. G. Basile, E. A. Cameron, S. H. Cooper, Harold Hotelling, E. D. Palmatier.

DIVISION OF SOCIAL SCIENCES: J. R. Caldwell, G. B. Cleveland, D. J. Cowden, P. N. Guthrie, M. S. Heath, Jr., C. S. Johnson, F. W. Klingberg, Mary W. Oliver, C. B. Robson, C. P. Spruill, G. B. Tindall, R. W. Wettach.

STANDING COMMITTEES OF THE FACULTY

Unless otherwise indicated, members of committees are appointed and terms expire the year indicated.

ADVISORY (elected: terms expire December). 1962: F. M. Green, C. H. Holman, A. K. King; 1963: C. P. Lyons, J. W. Thibaut, W. M. Whyburn; 1964: G. M. Harper, E. D. Palmatier, C. P. Spruill.

[2]ADVISORY COMMITTEE ON ADMISSIONS AND RECORDS. C. C. Bernard (ex officio), Wayne Bowers, E. A. Brecht, F. N. Cleaveland, Charles Henderson, Jr., C. H. Holman, N. N. Luxon, J. C. Sitterson (Chairman), R. E. Strong (ex officio).

ATHLETICS. 1962: J. P. Harland, F. W. Klingberg, W. L. Wiley; 1963: O. K. Cornwell, E. McG. Hedgpeth (Chairman); 1964: F. W. Hanft, C. P. Lyons.

BUILDINGS AND GROUNDS. 1962: H. R. Totten; 1963: P. W. Wager; 1964: J. A. Branch; 1965: G. M. Harper; 1966: H. T. Clark, Jr.; 1967: J. A. Parker; 1968: Charles Henderson, Jr.; 1969: R. E. Jamerson; 1970: S. A. Stoudemire (Chairman).

[2]CATALOGUE. C. C. Bernard (Chairman), Porter Cowles, A. C. Howell, A. K. King.

ENGLISH COMPOSITION. 1962: G. F. Horner (Chairman), Kai Jurgensen, Mary W. Oliver, R. A. Rupen, F. T. Semeniuk, R. T. Taylor, G. S. Welsh; 1963: J. H. Blackman (alternate), C. F. Brown, J. M. Ehle, Rashi Fein;[3] R. L. McKee, E. L. Mackie, Joseph St. Jean; 1964: Walter Allen, Jr., K. R. Byerly, E. Q. Campbell, G. B. Daniel, E. P. Douglass.

ESTABLISHED LECTURES. 1962: H. R. Baer, S. S. Jones, C. P. Lyons; 1963: C. E. Bowerman, N. A. Womack (Chairman); 1964: C. H. Pegg, C. E. Philbrook.

EXAMINATIONS AND INSTRUCTION. 1962: C. M. Foust, Lois T. Herring, J. S. Mac Nerney; 1963: J. B. Meriwether, C. N. Reilley; 1964: S. M. Holton, C. S. Jones (Chairman).

FACULTY HEARINGS (elected: terms expire December). 1962: C. P. Spruill; 1963: W. S. Wells; 1964: H. P. Brandis, Jr.; 1965: E. W. Noland;[4] 1966: F. N. Cleaveland.

FACULTY WELFARE. 1962: C. H. McGregor, J. W. Straley, J. W. Thibaut; 1963: W. P. Richardson (Chairman), A. I. Suskin; 1964: R. L. Ingram, H. C. Patterson.

FRATERNITIES AND SORORITIES. 1962: Martha D. DeBerry, C. E. Edge, R. M. Miller; 1963: G. H. Esser, H. T. Clark, Jr., R. A. King; 1964: C. H. Kreps (Chairman), Rollie Tillman, Dorothy A. Wood.

2. Members of this committee are appointed on account of their official positions and so are not subject to the regulation regarding terms of appointment.
3. Absent on leave, 1961-1963.
4. Absent on leave, 1961-1962.

HONORARY DEGREES (elected: terms expire July). 1962: J. N. Couch, A. K. King; 1963: W. R. Berryhill (alternate), C. P. Lyons (Chairman), E. W. Noland;[4] 1964: F. M. Green, W. L. Wells.

[5]INSTRUCTIONAL PERSONNEL. W. A. Bowers, H. P. Brandis, Jr., F. N. Cleaveland, A. E. Fink, C. J. Frarey, J. L. Godfrey (Chairman), C. H. Holman, M. W. Lee, N. N. Luxon, H. A. Perry, J. C. Sitterson.

RADIOISOTOPES. 1962: H. D. Crockford, R. L. Ingram; 1963: L. M. Slifkin, H. C. Thomas (Chairman), J. E. Wilson; 1964: J. A. Branch, D. A. Okun, E. H. Wood.

REGISTRATION. 1962: F. M. Duffey, C. S. George, Jr., J. E. Keller, W. G. Morgan, C. H. Pegg, E. Virginia Stone, Marion S. Wood; 1963: C. C. Bernard, J. R. Gaskin, M. A. Hill, H. A. Perry, R. E. Strong (Chairman), G. V. Taylor; 1964: E. A. Brecht, G. F. Horner, R. E. Jamerson, A. K. King, W. A. McKnight, F. C. Shepard, M. E. Woodard.

RETIREMENT ARRANGEMENTS. 1962: J. P. Dalzell, F. J. Schwentker (Chairman); 1963: C. E. Bowerman, Glen Haydon; 1964: F. M. Green, E. McG. Hedgpeth.

SCHOLARSHIPS, AWARDS, AND STUDENT AID. 1962: C. E. Anderson, O. K. Cornwell, M. A. Hill, W. A. Terrill, Marion S. Wood; 1963: C. C. Bernard, M. R. Evans, S. B. Knight, W. G. Long; 1964: J. R. Caldwell, C. O. Cathey (Chairman), L. A. Cotten, J. D. Phillips, Jr., N. A. Rosser, J. M. Saunders.

STUDENT DISCIPLINE (elected: terms expire July). 1962: W. A. McKnight, W. R. Mann; 1963: J. R. Caldwell, C. S. Jones; 1964: G. A. Barrett, E. A. Cameron.

TELEVISION PROGRAMMING. 1962: Ruth W. Fink, E. C. Markham, D. G. Tarbet (Chairman); 1963: J. B. Adams, S. B. Alexander, W. H. Wallace, R. S. Winslow; 1964: E. A. Cameron (Chairman), R. L. Hilliard, R. L. Ingram.

UNIVERSITY GOVERNMENT. 1962: C. R. Bell, D. H. Pollitt;[6] 1963: J. G. Kunstmann, E. C. Markham, A. T. Miller; 1964: Glen Haydon, J. E. King.

4. Absent on leave, 1961-1962.

5. Members of this committee are appointed on account of their official positions and so are not subject to the regulation regarding terms of appointment.

6. Absent on leave, 1961-1962.

OFFICERS AND ADMINISTRATIVE BOARDS OF COLLEGES AND SCHOOLS

DIVISION OF ACADEMIC AFFAIRS

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

COMMITTEE ON INSTRUCTIONAL PERSONNEL. JAMES LOGAN GODFREY, Ph.D., *Chairman;* WAYNE A. BOWERS, Ph.D., HENRY PARKER BRANDIS, A.B., LL.B., LL.D., FREDERIC NEILL CLEAVELAND, JR., Ph.D., ARTHUR EMIL FINK, Ph.D., M.S.W., CARLYLE JAMES FRAREY, B.S., M.S., GEORGE ALEXANDER HEARD, Ph.D., C. HUGH HOLMAN, Ph.D., MAURICE WENTWORTH LEE, Ph.D., NORVAL NEIL LUXON, Ph.D., ARNOLD PERRY, Ed.D., JOSEPH CARLYLE SITTERSON, Ph.D.

The General College

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean*

CLAIBORNE STRIBLING JONES, Ph.D., *Associate Dean*

ERNEST QUEENER CAMPBELL, Ph.D., MELVIN ARTHUR CHAMBERS, Ph.D., RAYMOND HOWARD DAWSON, Ph.D., CLIFFORD MCCLAIN FOUST, JR., Ph.D., RICHARD LANE FRAUTSCHI, Ph.D., OSBORNE BENNETT HARDISON, JR., Ph.D., ROBERT A. HOWARD, A.M., WILLIAM JULIAN KOCH, Ph.D., EUGENE ROBERT LONG, JR., Ph.D., ROBERT LAMBERT MCKEE, Ph.D., ISAAC NEWTON REYNOLDS, Ph.D., STUART WILSON SECHRIEST, A.B., FREDERICK CARLYLE SHEPARD, Ph.D., GEORGE EDWARD SHEPARD, Ed.D., WILLIAM RINGGOLD STRAUGHN, Ph.D., *Advisers*

ADMINISTRATIVE BOARD.[1] 1961: SAMUEL SHEPARD JONES, Ph.D.; 1962: FRANK MARION DUFFEY, Ph.D., MICHAEL ARENDELL HILL, JR., A.M., CARL HAMILTON PEGG, Ph.D.; 1963: ELIE MAYNARD ADAMS, Ph.D., PAUL EDMONDSON SHEARIN, Ph.D.; 1964: HAROLD QUENTIN LANGENDERFER, Ph.D.; 1965: ALBERT IRVING SUSKIN, Ph.D., DONALD GENTRY TARBET, Ed.D.; the Chancellor, the Director of Admissions, and the Dean of Student Affairs (ex officio).

The College of Arts and Sciences

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean*

FRANK MARION DUFFEY, Ph.D., *Associate Dean*

DAVID GIOVANNI BASILE, M.A., GORDON BAYLOR CLEVELAND, Ph.D., CHARLES ERNEST EDGE, Ph.D., ROBERT MOATS MILLER, Ph.D., *Advisers*

ADMINISTRATIVE BOARD.[2] 1962: EDWARD MCGOWAN HEDGPETH, M.D., JAMES CARLTON INGRAM, Ph.D., CHARLES EDWIN JENNER, Ph.D., HERBERT WILLIAM REICHERT, Ph.D.; 1963: JAMES EDWARD KING, JR., Ph.D., EUGEN MERZBACHER, Ph.D.; 1964: JOHN WALTER THIBAUT, Ph.D.; the Chancellor, the Dean of the Faculty, the Dean of the General College, the Director of Admissions, and the Dean of Student Affairs (ex officio).

DIVISION OF THE HUMANITIES. C. HUGH HOLMAN, Ph.D., *Chairman;* CHARLES HENDERSON, JR., Ph.D., *Secretary.*

DIVISION OF THE NATURAL SCIENCES. WAYNE A. BOWERS, Ph.D., *Chairman;* WALTER HALL WHEELER, Ph.D., *Secretary.*

DIVISION OF THE SOCIAL SCIENCES. FREDERIC NEILL CLEAVELAND, JR., Ph.D., *Chairman;* DONALD G. TARBET, Ph.D., *Secretary.*

The School of Business Administration

MAURICE WENTWORTH LEE, Ph.D., *Dean*

CLAUDE SWANSON GEORGE, JR., Ph.D., *Assistant Dean*

ROY WALTER HOLSTEN, A.B., *Assistant to the Dean*

PAUL NEWMAN GUTHRIE, Ph.D., *Chairman of the Department of Economics*

RALPH WILLIAM PFOUTS, Ph.D., *Chairman of Graduate Studies in the School of Business Administration and the Department of Economics*

GERALD ALAN BARRETT, A.B., LL.B., *Director of the M.B.A. Program*

ADMINISTRATIVE BOARD. [3, 4] 1962: RALPH WILLIAM PFOUTS, Ph.D., JOSEPH CARLYLE SITTERSON, Ph.D.; 1963: EVERETT D. PALMATIER, Ph.D., ARTHUR MURRAY WHITEHILL, JR., Ph.D.; 1964: CLEMENT S. LOGSDON, Ph.D., DANIEL O'HAVER PRICE, Ph.D.; 1965: HAROLD QUENTIN LANGENDERFER, D.B.A., WILLIAM M. WHYBURN, Ph.D., LL.D.; 1966: JAMES HORTON BLACKMAN, Ph.D., AVERY BERLOW COHAN, Ph.D.; the Chancellor (ex officio).

The School of Education

ARNOLD PERRY, Ed.D., *Dean*

ADMINISTRATIVE BOARD.[5] 1962: CARL FRASER BROWN, Ph.D., FLOYD BURTON JONES, Ph.D.; 1963: RICHARD ELMER JAMERSON, Ed.D., EVERETT D. PALMATIER, Ph.D.; 1964: DANIEL O'HAVER PRICE, Ph.D., NEAL HERRED TRACY, Ed.D.; 1965: FREDERIC NEILL CLEAVELAND, Ph.D., GEORGE MILLS HARPER, Ph.D., SAMUEL M. HOLTON, Ph.D., ROY ELMER SOMMERFELD, Ph.D.; the Chancellor, the Director of Admissions, and the Dean of Student Affairs (ex officio).

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1. Terms expire the year indicated.
2. Terms expire the year indicated.
3. Terms expire the year indicated.
4. The Assistant Dean of the School serves as Secretary of the Board.
5. Terms expire the year indicated.

The School of Journalism

NORVAL NEIL LUXON, Ph.D., *Dean*

ADMINISTRATIVE BOARD.[6] 1962: ROBERT MOATS MILLER, Ph.D., WESLEY H. WALLACE, M.A.; 1963: ARTHUR MURRAY WHITEHILL, JR., Ph.D.; 1964: ERNEST QUEENER CAMPBELL, Ph.D., WAYNE ALLEN DANIELSON, Ph.D.; 1965: JOHN BERRY ADAMS, Ph.D., SAMUEL SHEPARD JONES, Ph.D.; 1966: CLIFFORD PIERSON LYONS, Ph.D., JOSEPH CURTIS SLOANE, Ph.D.; the Chancellor, the Director of Admissions, and the Dean of Student Affairs (ex officio).

The School of Law

HENRY PARKER BRANDIS, JR., A.B., LL.B., LL.D., *Dean*

ADMINISTRATIVE BOARD. HERBERT RALPH BAER, A.B., LL.B., JAMES LOGAN GODFREY, Ph.D., FRANK WILLIAM HANFT, LL.B., A.B., LL.M., S.J.D., CLIFFORD PIERSON LYONS, Ph.D., ROBERT HASLEY WETTACH, A.B., M.A., LL.B., S.J.D.; the Chancellor (ex officio).

The School of Library Science

CARLYLE JAMES FRAREY, A.B., B.A., M.S., *Acting Dean*

JEAN FREEMAN, A.B. (L.S.), B.A., *Assistant to the Dean*

ADMINISTRATIVE BOARD.[7] 1962: CORYDON PERRY SPRUILL, B.Litt. (Oxon.); 1963: ROBERT ALFRED MILLER, B.S. in L.S., A.M.; 1965: MARGARET ELLEN KALP, B.A., M.A. in L.S.; 1966: GEORGE MILLS HARPER, Ph.D., GEORGE L. SIMPSON, JR., Ph.D.; the Chancellor (ex officio).

The School of Social Work

ARTHUR EMIL FINK, Ph.D., M.S.W., *Dean*

ADMINISTRATIVE BOARD.[8] 1963: CHARLES HOYDT BURNETT, A.B., M.D., JOHN CHARLES CASSEL, B.Sc., M.B., B.Ch., M.P.H.; 1965: RICHARD PERCIVAL CALHOON, A.B., A.M., JAMES REUBEN GASKIN, Ph.D., RUTH GILPIN, M.A., M.S.W., D.S.W., ALAN KEITH-LUCAS, M.A. (Cantab.), M.Sc. (Soc. Adm.), Ph.D., JOHN WALTER THIBAUT, Ph.D.; 1966: ARNOLD KIMSEY KING, Ph.D., DANIEL O'HAVER PRICE, Ph.D.; the Chancellor, the Director of Admissions, and the Dean of Student Affairs (ex officio).

The Summer Session

ARNOLD KIMSEY KING, Ph.D., *Director*

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A.B., 1909 (Kentucky); Certificate, 1913 (Library School, Wisconsin); Ph.D., 1932 (Chicago)

EDGAR HIESTER ALDEN (1949), *Associate Professor of Music*
B.M., 1936, M.M., 1940 (Oberlin); A.M., 1950, Ph.D., 1956 (North Carolina)

SYDENHAM BENONI ALEXANDER (1949), *Clinical Assistant Professor of Medicine and Assistant Administrator of Division of Health Affairs*
A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Virginia)

JOHN VOLNEY ALLCOTT (1940), *Professor of Art*
Ph.B., 1928 (Wisconsin); Diploma, 1932 (Art Institute of Chicago); Certificate, 1934 (Royal Academy of Art, Florence, Italy); M.A., 1936 (Chicago)

DON LEE ALLEN (1959), *Assistant Professor of Periodontology and Oral Pathology*
D.D.S., 1959 (North Carolina)

ERNEST MARVIN ALLEN, JR. (1940), *Associate Professor of Physical Education and Head Soccer Coach*
A.B., 1938, A.M., 1940 (North Carolina); Ed.D., 1960 (Pennsylvania State)

JAMES NORMAN ALLEN (1955), *Associate Professor of Medicine and Anatomy*
M.D., 1949 (Harvard)

WALTER ALLEN, JR. (1945), *Professor of Latin*
A.B., 1932 (Wesleyan); Ph.D., 1936 (Yale)

ANN MORGAN ANDERSON (1961), *Instructor in Nursing*
B.S.N., 1960 (North Carolina); R. N.

CARL ELMORE ANDERSON (1940-42; 1950), *Professor of Biochemistry and Nutrition and Assistant Dean of the School of Medicine*
B.S., 1935 (Connecticut); Ph.D., 1943 (North Carolina)

EVELYN LENORE ANDERSON (1956), *Research Associate in Public Health Nutrition*
B.S., 1930 (Iowa State College); M.P.H., 1954 (North Carolina)

ROBERT NELSON ANDERSON, JR. (1961), *Lecturer in Planning*
B.S.C.E., 1951 (Virginia Polytechnic Institute)

1. Absent on leave, fall semester, 1961-1962.

GEORGE REID ANDREWS (1959), *Clinical Instructor in Psychiatry*
A.B., 1937 (Dartmouth); M.A., 1942 (Yale); M.D., 1948 (Duke)

JAMES CLARENCE ANDREWS (1937), *Professor of Biochemistry and Nutrition, Emeritus (1957)*
B.S. in Chem., 1915 (Iowa); Ph.D., 1918 (Columbia); Prof. Hon., 1948 (San Carlos, Guatemala)

[2]MARJORIE MENDENHALL APPLEWHITE (1956), *Visiting Lecturer in Political Science*
A.B., 1920 (Woman's College, North Carolina); A.M., 1927 (Ratcliffe); Ph.D., 1940 (North Carolina)

[3]WALTER WERNER ARNDT (1957), *Associate Professor of Russian*
Dipl. Econ. Pol. Sc. (Oxon.), 1936, B.S., 1943 (Robert College, Istanbul, Turkey); Ph.D. 1956 (North Carolina)

ARTHUR LEMON ARNOLD (1961), *Assistant Professor of Mental Health*
B.A., 1948, M.D., 1952 (California)

JOHN HAMPTON ARNOLD (1957), *Assistant Professor of Pediatrics and Instructor in Clinical Bacteriology*
B.S., 1948, M.D., 1951 (Tulane)

MARY BERTUCIO ARNOLD (1957), *Assistant Professor of Pediatrics*
B.A., 1945 (Vassar); M.D., 1950 (Vermont)

[3a]LOWELL DEWITT ASHBY (1947), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
A.B., 1936 (Hastings College); M.A., 1938 (Nebraska); Ph.D., 1948 (Wisconsin)

ELI JOHN ATTAYEK (1959), *Clinical Instructor in Periodontology and Oral Pathology*
B.S., 1956, D.D.S., 1959 (North Carolina)

EDITH EUGENIA AVERITT (1925), *Geology and Geography Librarian*
A.B., 1925, A.B. in L.S., 1934 (North Carolina)

FRANK M. BADROCK (1956), *Clinical Instructor in Psychiatry*
B.M., B.S., 1933 (University of Leeds, England); Diploma in Psychiatry, 1955 (University of Edinburgh, Scotland)

HERBERT RALPH BAER (1945), *Alumni Distinguished Professor of Law (1961)*
A.B., 1923 (Cornell); LL.B., 1926 (Harvard)

BILLY BAGGETT (1957), *Associate Professor of Pharmacology and Biochemistry*
B.A., 1947 (Mississippi); Ph.D., 1952 (Saint Louis)

JAMES OSLER BAILEY (1930), *Professor of English*
A.B., 1924, A.M., 1927, Ph.D., 1934 (North Carolina)

HERMAN GLENN BAITY (1920), *Professor of Sanitary Engineering, Emeritus (1955); Visiting Professor of Sanitary Engineering* [4]
A.B., 1917, S.B. in C.E., 1922 (North Carolina); S.M., 1925, Sc.D., 1928 (Harvard)

BENJAMIN RIVES BAKER (1961), *Instructor in Pedodontics*
B.A., 1951 (Guilford College); M.Ed., 1952, D.D.S., 1961 (North Carolina)

CLYDE LOWELL BALL (1956), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1936 (Memphis State); A.M., 1937, LL.B., 1949 (Vanderbilt)

BENNIE DALE BARKER (1958), *Assistant Professor of Crown and Bridge Prosthodontics*
B.S., 1954 (Davidson); D.D.S., 1958 (North Carolina)

SAMUEL GILL BARNES (1953), *Assistant Professor of English and Head Wrestling Coach*
B.S., 1936 (Oklahoma A. & M.); A.M., 1946, Ph.D., 1953 (North Carolina)

THOMAS BUCHANAN BARNETT (1952), *Associate Professor of Medicine*
A.B., 1944 (Tennessee); M.D., 1949 (Rochester)

GERALD ALAN BARRETT (1947), *Professor of Business Administration and Director of the M.B.A. Program*
A.B., 1933 (Lehigh); LL.B., 1936 (Columbia)

ROGER EVANS BARTON (1953), *Associate Professor of Operative Dentistry*
D.D.S., 1945 (Pennsylvania)

2. Died August 29, 1961.
3. Absent on leave, 1961-1962.
3a. Absent on leave, 1961-1962.
4. January 1, to March 31, 1962.

DAVID GIOVANI BASILE (1949), *Assistant Professor of Geography and Adviser in the College of Arts and Sciences*
A.B., 1936 (Washington and Lee); M.A., 1939 (Columbia)

MAURICE BASSAN (1961), *Instructor in English*
B.A., 1951, M.A., 1952 (New York University); Ph.D., 1961 (California-Berkeley)

E. EARL BAUGHMAN (1954), *Professor of Psychology and Research Professor in the Institute for Research in Social Science*
B.S., 1946, Ph.D., 1951 (Chicago)

JAMES WYATT BAWDEN (1961), *Assistant Professor of Pedodontics*
D.D.S., 1954, M.S., 1960, Ph.D., 1961 (Iowa)

STEPHEN BARTOW BAXTER (1958), *Assistant Professor of History*
B.A., 1950 (Harvard); Ph.D., 1955 (Cambridge)

ALBERTA MARGARET BEAT (1953), *Assistant Director and Assistant Professor of Dental Hygiene*
R.D.H., 1946 (Columbia); B.S., 1952 (Washington)

JAMES RUSH BEELER (1960), *Instructor in French*
A.B., 1942, M.A., 1949 (North Carolina)

CHARLES DALE BEERS (1918-22; 1927), *Professor of Zoology, Emeritus (1960)*
A.B., 1921, A.M., 1922 (North Carolina); Ph.D., 1925 (Johns Hopkins)

LUIS BEL (1961), *Research Associate in Physics*
Licenciado en Ciencias Fisicas, 1957 (University of Barcelona); Ph.D., 1960 (University of Paris)

C. RITCHIE BELL (1955), *Associate Professor of Botany*
A.B., 1947, M.A., 1949 (North Carolina); Ph.D., 1953 (California)

FRED E. BELL (1958), *Assistant Professor of Biochemistry and Nutrition*
A.B., 1950, M.A., 1953, Ph.D., 1957 (Emory)

WILLIAM EDWARD BELLAMY, JR. (1960), *Clinical Instructor in Medicine*
B.S., 1945 (Wake Forest); M.D., 1947 (Bowman Gray)

EDWARD PERRY BENBOW, JR. (1954), *Clinical Instructor in Pediatrics*
A.B., 1937 (North Carolina); M.D., 1941 (Duke)

WALTER RUSSELL BENSON (1956), *Associate Professor of Pathology*
M.D., 1944 (Duke)

DONALD BERG (1961), *Research Associate in Biostatistics*
B.S., 1950 (Minnesota); M.P.H., 1961 (North Carolina)

HARRY BERGHOLZ (1957), *Chief Bibliographer, University Library*
M.A., 1931, Ph.D., 1933 (Berlin); M.A.L.S., 1957 (Michigan)

[4a]MICHAEL KALEN BERKUT (1947), *Assistant Professor of Biochemistry and Nutrition*
B.S., 1941 (North Carolina State); Ph.D., 1953 (North Carolina)

MARVIN L. BERMAN (1960), *Research Associate in Psychiatry*
B.S., 1951 (Connecticut); M.S., 1954, Ph.D., 1957 (Washington)

[5]BARBARA HELEN BERNARD (1954), *Associate Professor of Nursing (Psychiatric Nursing)*
Diploma in Nursing, 1933 (College of Nursing and Health, Cincinnati); R.N.; B.S.N. Ed., 1951, Litt.M., 1952 (Pittsburgh)

CHARLES CECIL BERNARD (1947), *Director of Admissions*
B.A., 1937, M.A., 1938 (Florida)

WALTER REECE BERRYHILL (1933), *Professor of Medicine and Dean of the School of Medicine*
A.B., 1921 (North Carolina); M.D., 1927 (Harvard); Sc.D. (Davidson)

MILLARD BAIMBRIDGE BETHEL (1959), *Professor of Public Health Administration and Assistant Dean of the School of Public Health*
M.D., 1936 (Tennessee); M.P.H., 1941 (North Carolina)

EM OLIVIA BEVIS (1958), *Instructor in Nursing*
B.S.N., 1955 (Emory); R.N.; M.A., 1958 (Chicago)

PRODYOT KUMAR BHATTACHARYYA (1960), *Research Associate in Statistics*
M.Sc., 1953, D.Phil., 1960 (Calcutta)

4a. Absent on leave, January 1, 1962, to December 31, 1963.
5. Resigned August 31, 1961.

[6]HAROLD A. BIERCK (1948), *Professor of History*
B.A., 1938, M.A., 1940, Ph.D., 1944 (U.C.L.A.)

JAMES HORTON BLACKMAN (1958), *Associate Professor of Economics*
A.B., 1939 (Swarthmore College); Certificate, 1949 (Russian); M.A., 1949, Ph.D., 1958 (Columbia)

JAMES CYRIL DICKSON BLAINE (1938), *Professor of Transportation*
B.Comm., 1934 (Queen's University, Canada); S.M., 1939, Ph.D., 1941 (North Carolina)

GEORGE WALKER BLAIR, JR. (1953), *Clinical Assistant Professor of Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Pennsylvania)

[7]MARGARET BLEE (1941), *Professor of Public Health Nursing*
Diploma, 1918 (St. Joseph School of Nursing, Kansas City, Mo.); R.N.; B.S., 1933 (Missouri); M.Ed., 1941 (Mills College)

CARL S. BLYTH (1949), *Associate Professor of Physical Education and Director of the Laboratory of Applied Physiology*
B.S., 1947 (Lenoir Rhyne); A.M., 1948, Ph.D., 1953 (North Carolina)

WILLIAM BREVARD BLYTHE (1960), *Instructor in Medicine*
A.B., 1948 (North Carolina); M.D., 1953 (Washington University)

RALPH HENRY BOATMAN, JR. (1960), *Professor of Public Health Education*
B.Ed., 1943 (Southern Illinois); M.P.H., 1947, Ph.D., 1954 (North Carolina)

RICHARD DARRELL BOCK (1958), *Associate Professor of Psychology*
B.S., 1948 (Carnegie Institute of Technology); M.A., 1950, Ph.D., 1952 (Chicago)

HERBERT LUTHER BODMAN, JR. (1960), *Assistant Professor of History*
B.A., 1949 (North Carolina); M.A., 1952, Ph.D., 1955 (Princeton)

[8]RICHMOND PUGH BOND (1929), *Kenan Professor of English (1955)*
A.B., 1920 (Vanderbilt); A.M., 1923, Ph.D., 1929 (Harvard)

HENRY CHARLES BOREN (1960), *Associate Professor of History*
A.B., 1949 (Southwest Missouri State College); A.M., 1950, Ph.D., 1952 (Illinois)

[9]RAJ CHANDRA BOSE (1948), *Professor of Statistics*
M.A., 1927, D.Litt., 1947 (Calcutta)

VERNON LELAND BOUNDS (1950), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
LL.B., 1949 (Virginia)

CHARLES E. BOWERMAN (1957), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1935 (Denison); M.A., 1941, Ph.D., 1948 (Chicago)

NORMAN DALE BOWERS (1960), *Director of the Fifth Year Program in Teacher Education*
B.A., 1947 (DePauw); M.A., 1951, Ph.D., 1955 (Minnesota)

WAYNE A. BOWERS (1947), *Professor of Physics*
A.B., 1938 (Oberlin); Ph.D., 1943 (Cornell)

BERNARD H. BOYD (1950), *James A. Gray Professor of Biblical Literature (1950)*
A.B., 1932 (Presbyterian College); Th.B., 1935 (Princeton Theological Seminary); M.A., 1935 (Princeton); Th.D., 1946 (Union Theological Seminary in Virginia)

HENRY PARKER BRANDIS, JR. (1940), *Professor of Law and Dean of the School of Law*
A.B., 1928 (North Carolina); LL.B., 1931 (Columbia); LL.D., 1951 (Catawba)

JAMES LEONARD BRANNON, JR. (1959), *Assistant Professor of Pharmacy*
B.S., 1948, M.S., 1951 (Illinois); Ph.D., 1960 (Kansas)

HARRY ROBERT BRASHEAR, JR. (1953), *Associate Professor of Surgery (Orthopedics)*
A.B., 1943, M.D., 1945 (California)

ALFRED THEODOR BRAUER (1941), *Kenan Professor of Mathematics (1959)*
Ph.D., 1928 (Berlin)

JOHN CHARLES BRAUER (1950), *Professor of Pedodontics and Dean of the School of Dentistry*
D.D.S., 1928, A.B., 1934, M.Sc., 1936 (Nebraska)

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6. Absent on leave, fall semester, 1961-1962.
7. Absent on leave, fall quarter, 1961, and spring quarter, 1962.
8. Absent on leave, fall semester, 1961-1962.
9. Absent on leave, 1961-1962.

CHARLES ANTHONY BREAM (1952), *Associate Professor of Radiology*
B.S., 1936 (Grove City College); M.D., 1940 (Temple)

EDWARD ARMOND BRECHT (1939), *Professor of Pharmacy and Dean of the School of Pharmacy*
B.S. in Phar., 1933, M.S., 1934, Ph.D., 1939 (Minnesota)

MILLARD SHERIDAN BRECKENRIDGE (1927), *Professor of Law*
Ph.B., 1917 (Chicago); LL.B., 1918 (Yale)

MARIANNE SONNENBRODT BRESLIN (1960), *Instructor in Psychiatry*
M.D., 1946 (Medical Academy, Duesseldorf, Germany)

ANDREW G. BRIGGS (1960), *Clinical Instructor in Psychiatry*
B.S., 1952 (Hampden-Sydney); M.D., 1956 (Virginia)

KENNETH MERLE BRINKHOUS (1946), *Alumni Distinguished Professor of Pathology (1961)*
B.A., 1929, M.D., 1932 (Iowa)

C. VICTOR BRISCOE (1958), *Assistant Professor of Physics*
B.S., 1952 (King College); M.S., 1957, Ph.D., 1958 (Rice)

REBECCA AGNES BROACH (1959), *Associate Professor of Public Health Nutrition*
B.S., 1934, M.S., 1944 (Georgia); M.P.H., 1952 (North Carolina)

DEWEY CLIFTON BROCK (1959), *Chief, Business Administration and Social Sciences Division, University Library*
B.S., 1951 (Clemson); M.A.L.S., 1957 (Michigan); M.A. in Pol.Sci., 1961 (Florida State)

LEE MARSHALL BROOKS (1927), *Professor of Sociology, Emeritus (1955)*
A.B., 1925 (Boston); A.M., 1926, Ph.D., 1929 (North Carolina)

CARL FRASER BROWN (1950), *Professor of Education*
A.B., 1930, A.M., 1931 (South Carolina); Ph.D., 1946 (Peabody)

DAVID GRANT BROWN (1961), *Assistant Professor of Economics*
A.B., 1958 (Denison); M.A., 1960, Ph.D., 1961 (Princeton)

EARL T. BROWN (1956), *Associate Professor of Pharmacy*
B.S. in Phar., 1952, Ph.D., 1956 (North Carolina)

EDWIN LOUIS BROWN (1961), *Instructor in Classics*
B.A., 1950 (Haverford); Ph.D., 1961 (Princeton)

MARGARET ALICE BROWN (1960), *Instructor in Nursing (Public Health Nursing)*
B.S.N., 1947 (Michigan); R.N.; M.P.H., 1960 (Michigan)

ROY MELTON BROWN (1925), *Professor of Public Welfare Administration, Emeritus (1948)*
A.B., 1906, A.M., 1921, Ph.D., 1929 (North Carolina)

ALBERT HUGHES BRYAN (1946), *Professor of Public Health Nutrition*
B.S., 1927, M.D., 1931 (Harvard)

JAMES DONNELL BUCKHOLTZ (1960), *Assistant Professor of Mathematics*
B.A., 1957, Ph.D., 1960 (Texas)

HOKE VOGLER BULLARD, JR. (1957), *Clinical Instructor in Medicine*
B.S., 1948 (North Carolina); M.D., 1951 (Harvard)

JAMES BELL BULLITT (1913), *Professor of Pathology, Emeritus (1947)*
B.A., 1894, M.A., 1895 (Washington and Lee); M.D., 1897 (Virginia)

LEWIS FRANKLIN BUMGARDNER (1953), *Clinical Associate Professor of Periodontology and Oral Pathology*
D.D.S., 1935 (Emory)

PAUL LESLIE BUNCE (1952), *Associate Professor of Surgery*
A.B., 1938 (Oberlin); M.D., 1942 (Chicago)

CHARLES HOYT BURNETT (1951), *Professor of Medicine*
A.B., 1934, M.D., 1937 (Colorado)

JAMES ROBERT BUTLER (1960), *Visiting Assistant Professor of Geology*
B.S., 1952 (Georgia); M.S., 1955 (Colorado)

THOMAS CULLOM BUTLER (1950), *Professor of Pharmacology*
A.B., 1930, M.D., 1934 (Vanderbilt)

KENNETH RHODES BYERLY (1957), *Associate Professor of Journalism*
B.B.A., 1930 (Minnesota); M.A., 1932 (North Carolina)

ROBERT GRAY BYRD (1960), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1953, J.D., 1956 (North Carolina)

ROBERT RANDALL CADMUS (1950), *Professor of Hospital Administration and Director of the North Carolina Memorial Hospital*
A.B., 1936 (College of Wooster); M.D., 1940 (Columbia)

JAMES ROY CALDWELL (1947), *Associate Professor of Modern Civilization*
A.B., 1931 (Davidson); A.M., 1937, Ph.D., 1950 (North Carolina)

[10]WALLACE EVERETT CALDWELL (1921), *Professor of Ancient History*
A.B., 1910 (Cornell); Ph.D., 1919 (Columbia)

RICHARD PERCIVAL CALHOON (1945), *Professor of Business Administration*
A.B., 1930, A.M., 1932 (Pittsburgh)

[11]SHIRLEY ELIZABETH CALLAHAN (1958), *Instructor in Preventive Medicine*
B.S., 1952 (Maryland); C.P.H.N., 1955 (Minnesota); M.P.H., 1958 (North Carolina)

CHARLES METZ CAMERON, JR. (1955), *Professor of Public Health Administration*
M.D., 1948 (Vanderbilt); M.P.H., 1954 (North Carolina)

EDWARD ALEXANDER CAMERON (1929), *Professor of Mathematics*
A.B. in Ed., 1928, A. M., 1929, Ph.D., 1936 (North Carolina)

ERNEST QUEENER CAMPBELL (1958), *Associate Professor of Sociology, Research Associate in the Institute for Research in Social Science, and Adviser in the General College*
A.B., 1945 (Furman); M.A., 1946 (Pennsylvania); Ph.D., 1956 (Vanderbilt)

VICENTE CANTARINO (1959), *Instructor in Semitics*
Ph.D., 1957 (University of Munich, Germany)

LOUISE CANTRELL (1957), *Associate Professor of Maternal and Child Health Nursing*
B.S. in Nursing, 1950, M.S. in Nursing, 1960 (School of Nursing, Vanderbilt)

[12]KATHERINE KENNEDY CARMICHAEL (1946), *Dean of Women*
A.B., 1932 (Birmingham-Southern); M.A., 1939, Ph.D., 1943 (Vanderbilt)

RAY L. CARPENTER, JR. (1958-59; 1960), *Lecturer in Library Science*
A.B., 1949 (St. Lawrence); M.A., 1951, M.S. in L.S., 1959 (North Carolina)

JOHN WEBER CARR III (1959), *Associate Professor of Mathematics and Director of the Computation Center*
B.S., 1943 (Duke); M.S., 1949, Ph.D., 1951 (Massachusetts Institute of Technology)

DUDLEY DEWITT CARROLL (1918), *Kenan Professor of Economics (1955) and Dean of the School of Business Administration, Emeritus (1956)*
A.B., 1907 (Guilford); A.B., 1908 (Haverford); M.A., 1916 (Columbia)

CLYDE CASS CARTER (1946), *Professor of Business Law*
A.B., 1925 (Emory and Henry); M.A., 1928 (Vanderbilt); LL.B., 1935 (Wilmington Law School); Ph.D., 1942 (North Carolina)

ISABELLE KIRKLAND CARTER (1937), *Associate Professor of Social Work*
B.S., 1924 (Boston); M.S.S., 1925 (Smith College School of Social Work)

JOEL J. CARTER (1949), *Associate Professor of Music*
A.B., 1935 (San Jose State College); M.A., 1947, Ph.D., 1955 (Stanford)

JOHN CHARLES CASSEL (1954), *Professor of Epidemiology, Clinical Assistant Professor of Medicine, and Clinical Associate Professor of Epidemiology in the Department of Psychiatry*
B.Sc., 1941, M.B., B.Ch., 1945 (University of Witwatersrand, South Africa); M.P.H., 1953 (North Carolina)

JAMES LUTHER CATHELL (1958), *Clinical Instructor in Psychiatry*
M.D., 1937 (Emory)

CORNELIUS OLIVER CATHEY (1947), *Professor of History and Modern Civilization*
A.B., 1928, A.M., 1929 (Davidson); Ph.D., 1948 (North Carolina)

GERALD MASON CATHEY (1961), *Instructor in Operative Dentistry*
B.S., 1957 (Davidson); D.D.S., 1961 (North Carolina)

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10. Died October 6, 1961.
11. Resigned October 31, 1961.
12. Absent on leave, 1961-1962.

VERNE STRUDWICK CAVINESS (1952), *Clinical Associate Professor of Medicine*
A.B., 1915 (Trinity College); M.D., 1921 (Jefferson)

HARRIE ROGERS CHAMBERLIN (1953), *Associate Professor of Pediatrics*
A.B., 1942, M.D., 1945 (Harvard)

MELVIN ARTHUR CHAMBERS (1959), *Associate Professor of Pharmacy, Assistant Dean of the School of Pharmacy, and Adviser in the General College*
B.S., 1944, Ph.D., 1949 (Ohio State)

HUBERT ROYSTER CHAMBLEE (1954), *Clinical Assistant Professor of Periodontology and Oral Pathology*
D.D.S., 1925 (Medical College of Virginia)

JOHN RANDOLPH CHAMBLISS (1956), *Clinical Associate Professor of Medicine*
B.S., 1942 (North Carolina); M.D., 1944 (Harvard)

EMIL THEODORE CHANLETT (1946), *Professor of Sanitary Engineering*
B.S., 1937 (College of the City of New York); M.S.P.H., 1939 (Columbia); M.S.S.E., 1941 (North Carolina)

FRANCIS STUART CHAPIN, JR. (1949), *Professor of Planning and Research Professor in the Institute for Research in Social Science*
A.B., 1937 (Minnesota); B.Arch.C.P., 1939, M.C.P., 1940 (Massachusetts Institute of Technology)

MARVIN EDWIN CHAPIN (1952), *Professor of Oral Surgery*
D.D.S., 1938 (Chicago College of Dental Surgery, Loyola University)

JOHN BRYANT CHASE, JR. (1956), *Associate Professor of Education*
A.B., 1946, M.A., 1950 (North Carolina); Ed.D., 1954 (Virginia)

MARVIN EMMETT CHEEK (1956), *Instructor in Physical Education*
A.B., 1948, A.M., 1949 (North Carolina)

MARY VIDA CHEEK (1953), *Associate Professor of Nursing and Director of Nursing Service, North Carolina Memorial Hospital*
Diploma in Nursing, 1928 (North Carolina Baptist Hospital); R.N.; B.S., 1935 (Virginia); M.N., 1948 (Washington)

THOMAS SIDNEY CHEEK (1957), *Clinical Assistant Professor of Medicine*
M.D., 1947 (Medical College of Virginia)

ALPHONSE F. CHESTNUT (1948), *Professor and Director of the Institute of Fisheries Research*
B.S., 1941 (William and Mary); M.S., 1943, Ph.D., 1949 (Rutgers)

SIDNEY SHAW CHIPMAN (1950), *Professor of Maternal and Child Health and Clinical Professor of Pediatrics*
B.A., 1924 (Acadia); M.D., 1928 (McGill); M.P.H., 1947 (Yale)

THOMAS WELDON CHRISTOPHER (1961), *Professor of Law*
B.A., 1939 (Washington and Lee); LL.B., 1948 (Alabama); LL.M., 1950, S.J.D., 1957 (New York University)

EUNICE CHURCHILL (1961), *Chief, Circulation Department, University Library*
A.B., 1940 (Marshall College); M.L.S., 1945 (Columbia)

DOUGLAS HENDON CLARK (1961), *Clinical Instructor in Surgery*
B.S., 1942 (Davidson); M.D., 1945 (Pennsylvania)

DWIGHT LANIER CLARK (1957), *Assistant Professor of Oral Surgery*
D.D.S., 1954 (North Carolina)

HENRY TOOLE CLARK, JR. (1950), *Administrator of the Division of Health Affairs*
A.B., 1937 (North Carolina); M.D., 1944 (Rochester)

MARY GILL CLARKE (1956), *Associate Professor of Psychology in Departments of Psychiatry and Psychology*
A.B., 1940 (Woman's College, North Carolina); M.A., 1943 (Minnesota); Ph.D., 1954 (Duke)

JOHN STROTHER CLAYTON (1951), *Associate Professor of Radio, Television, and Motion Pictures*
A.B., 1949, M.A., 1955 (North Carolina); M.F.A., 1959, D.F.A., 1960 (Yale)

FRANCES CLEARY (1959), *Lecturer in Recreation Curriculum*
A.B., 1938 (College of St. Rose, Albany, New York); M.A., 1958 (North Carolina)

FREDERIC NEILL CLEAVELAND (1951), *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
B.A., 1937, M.A., 1942 (Duke); M.A., 1950, Ph.D., 1951 (Princeton)

GORDON BAYLOR CLEVELAND (1952), *Associate Professor of Political Science and Adviser in the College of Arts and Sciences*
B.S., 1938 (Davidson); M.S., 1947 (Alabama Polytechnic Institute); Ph.D., 1957 (North Carolina)

NORA FRANCES CLINE (1961), *Assistant Professor of Mental Health*
B.S.P.H.N., 1945 (Duquesne); M.L.N.E., 1948 (Pittsburgh)

WALLACE ALEXANDER CLYDE, JR. (1961), *Instructor in Pediatrics*
B.A., 1951, M.D., 1954 (Vanderbilt)

ALBERT COATES (1923), *Professor of Law and Director of the Institute of Government*
A.B., 1918 (North Carolina); LL.B., 1923 (Harvard)

CARL M. COCHRANE (1956), *Assistant Professor of Psychology in Department of Psychiatry*
B.A., 1950 (Guilford); Ph.D., 1959 (North Carolina)

GEORGE HARRY COCOLAS (1958), *Assistant Professor of Pharmaceutical Chemistry*
B.S. in Phar., 1952 (Connecticut); Ph.D., 1956 (North Carolina)

JOFFRE LANNING COE (1948), *Associate Professor of Anthropology and Director of the Research Laboratories of Anthropology*
A.B., 1944 (North Carolina); M.A., 1948, Ph.D., 1959 (Michigan)

FREDERIC EDWARD COENEN (1931), *Professor of German*
A.B., 1928, A.M., 1930 (Arizona); Ph.D., 1936 (North Carolina)

BETTY EDENFIELD COGSWELL (1960), *Instructor in Preventive Medicine (Rehabilitation)*
A.B., 1952 (Goucher); M.S., 1958 (North Carolina State)

AVERY BERLOW COHAN (1957), *Professor of Finance and Drexel Research Professor (1961-62)*
A.B., 1934 (Cornell); A.M., 1942, Ph.D., 1959 (Columbia)

JAMES LOGAN COKE (1961), *Instructor in Chemistry*
B.S., 1956 (State College of Washington); Ph.D., 1961 (Wayne State)

ROBERT ERVIN COKER (1922), *Kenan Professor of Zoology (1940), Emeritus (1949)*
S.B., 1896, S.M., 1897 (North Carolina); Ph.D., 1906 (Johns Hopkins); Sc.D. (South Carolina); LL.D. (North Carolina)

ROBERT ERVIN COKER, JR. (1956), *Professor of Public Health Administration*
A.B., 1932 (North Carolina); M.D., 1940, M.P.H., 1947 (Johns Hopkins)

WILLIAM ALLAN COLES (1958), *Acting Assistant Professor of English*
B.A., 1951, M.A., 1952, Ph.D., 1957 (Harvard)

ELWOOD BROGDEN COLEY (1955), *Clinical Instructor in Pediatrics*
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)

FRANCIS NASH COLLIER, JR. (1957), *Associate Professor of Chemistry*
B.S., 1942 (Howard College); M.S., 1949, Ph.D., 1957 (Ohio State)

JAMES PADDOCK COLLMAN (1958), *Assistant Professor of Chemistry*
B.S., 1954, M.S., 1956 (Nebraska); Ph.D., 1958 (Illinois)

[13]OLAN VICTOR COOK (1931), *Associate Professor and Associate University Librarian*
A.B., 1929, A.B. in L.S., 1932 (North Carolina)

ALBERT DERWIN COOPER (1940), *Clinical Assistant Professor of Medicine*
M.D., 1931, A.B., 1932 (George Washington)

GEORGE MARION COOPER (1956), *Clinical Instructor in Surgery*
B.A., 1941 (North Carolina); M.D., 1944 (Virginia)

SHERWIN HARRY COOPER (1957), *Assistant Professor of Geography*
B.S., 1949 (Cornell); M.A., 1952, Ph.D., 1960 (Michigan)

NORMAN CORDON (1948), *Bureau of Community Adult Education, Extension Division*
Mus.D., 1946 (North Carolina)

OLIVER KELLY CORNWELL (1935), *Professor of Physical Education*
A.B., 1920 (Wittenberg); M.A., 1929 (Ohio State); Ed.D. (Catawba)

WILLIAM WALTER CORT (1953), *Research Professor in Parasitology, Emeritus (1959)*
A.B., 1909 (Colorado College); A.M., 1911, Ph.D., 1914 (Illinois); Sc.D. (Hon.) (North Carolina; Colorado College)

13. Retired April 7, 1961.

DONALD PAUL COSTELLO (1935), *Kenan Professor of Zoology (1949)*
A.B., 1930 (College of the City of Detroit); Ph.D., 1934 (Pennsylvania)

LYMAN ATKINSON COTTEN (1941), *Professor of English*
A.B., 1936 (North Carolina); Ph.D., 1941 (Yale)

JOHN NATHANIEL COUCH (1917), *Kenan Professor of Botany (1945)*
A.B., 1919, A.M., 1922, Ph.D., 1924 (North Carolina); Sc.D. (Catawba)

CHARLES R. COUNCIL (1961), *Visiting Assistant Professor of Biostatistics*
B.A., 1936 (Wake Forest)

DUDLEY JOHNSTONE COWDEN (1935), *Professor of Economic Statistics*
A.B., 1919 (Grinnell); A.M., 1922 (Chicago); Ph.D., 1931 (Columbia)

PORTER COWLES (1933), *Assistant Director of The University of North Carolina Press*
A.B., 1933 (North Carolina)

ERNEST CRAIGE (1952), *Associate Professor of Medicine*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)

MILES RICHARD CRAMER (1961), *Instructor in Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1957 (Michigan); M.A., 1960 (Harvard)

CLIFTON EARL CRANDELL (1955), *Assistant Professor of Oral Diagnosis and Treatment Planning*
B.S., 1949 (East Carolina Teachers College); D.D.S., 1953 (Medical College of Virginia); M.S., 1961 (Pennsylvania); M.Ed., 1961 (Duke)

GEORGE WILLIAM CRANE, JR. (1952), *Clinical Assistant Professor of Medicine (Dermatology)*
M.D., 1945 (Northwestern)

HARRY WOLVEN CRANE (1920), *Professor of Psychology and Psychological Consultant, Emeritus (1956)*
A.B., 1909, A.M., 1910, Ph.D., 1913 (Michigan)

CHARLES R. CRAWFORD (1960), *Technical Sergeant, United States Air Force; Instructor in Air Science*

EUGENE BENSON CRAWFORD, JR. (1951), *Assistant Professor of Hospital Administration and Associate Director of North Carolina Memorial Hospital*
S.B., 1948 (North Carolina)

JAMES JOSEPH CRAWFORD (1960), *Research Associate in Bacteriology*
B.A., 1953, M.A., 1954 (Missouri)

WILLIAM EDWARD CREIGHTON (1961), *Assistant Professor of Practice Administration and Assistant Professor of Public Health Administration*
D.D.S., 1957 (Creighton); M.P.H., 1960 (North Carolina)

HARRY JENNINGS CROCKETT, JR. (1960), *Assistant Professor of Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1953 (Kansas); M.A., 1956 (Washington University); Ph.D., 1960 (Michigan)

HORACE DOWNS CROCKFORD (1921), *Professor of Chemistry*
B.S., 1920 (North Carolina State); S.M., 1923, Ph.D., 1926 (North Carolina)

WILLIAM JAMES CROMARTIE (1951), *Professor of Bacteriology and Medicine and Director of the Bacteriological and Serological Laboratories*
M.D., 1937 (Emory)

[14]RICHARD SIDNEY CROMWELL (1958), *Instructor in Modern Civilization*
B.A., 1949 (Southern California); M.A., 1955 (Stanford)

SUSAN DISCHKA CSAKY (1961), *Lecturer in Library Science and Librarian of the School of Library Science*
B.A., 1948 (Georgia); M.A., 1951 (Johns Hopkins)

[15]TIHAMER ZOLTAN CSAKY (1951), *Associate Professor of Pharmacology*
M.D., 1939 (University of Budapest, Hungary)

PAUL MAHAN CUMMINGS, JR. (1953), *Assistant Professor of Periodontology and Oral Pathology*
B.S., 1944, D.D.S., 1953 (Pittsburgh); M.S., 1958 (Alabama)

14. Resigned September 1, 1961.
15. Resigned February 28, 1962.

THOMAS EDWIN CURTIS (1954), *Assistant Professor of Psychiatry*
M.D., 1950 (Duke)

WILLIAM GRANT DAHLSTROM (1953), *Professor of Psychology in Department of Psychology, Clinical Professor of Psychology in Department of Psychiatry, and Research Professor in the Institute for Research in Social Science*
B.A., 1944, Ph.D., 1949 (Minnesota)

[16]RUTH DALRYMPLE (1951), *Professor of Nursing*
B.S., 1937 (Muskingum); M.N., 1940, M.S., 1952 (Western Reserve); R.N.

JOHN PERCY DALZELL (1937), *Professor of Law*
A.B., 1922, LL.B., 1924 (Minnesota)

[17]FRANK HAYES DANIEL (1958), *Associate Professor of Pedodontics*
A.B., 1951 (Catawba); D.D.S., 1956, M.S., 1958 (North Carolina)

GEORGE BERNARD DANIEL (1957), *Assistant Professor of French*
A.B., 1949, M.A., 1950 (Emory); Diplôme de Litt. Cont., 1953 (Sorbonne); Ph.D., 1959 (North Carolina)

WILLIAM JOHN DANIEL (1938), *Professor of Psychology*
A.B., 1938 (Antioch College); Ph.D., 1942 (North Carolina)

WAYNE ALLEN DANIELSON (1959), *Associate Professor of Journalism and Research Associate in the Institute for Research in Social Science*
B.A., 1952 (Iowa); M.A., 1953, Ph.D., 1957 (Stanford)

DORCAS FAYE DARK (1960), *Instructor in Nursing (Medical-Surgical Nursing)*
B.S.N., 1959 (North Carolina); R.N.

JOHN FREDERICK DASHIELL (1919), *Kenan Professor of Psychology (1935), Emeritus (1958)*
B.S., 1908, B.Litt., 1909, Sc.D., 1949 (Evansville College); M.A., 1910, Ph.D., 1913 (Columbia)

JANIS HAZELTON DAVID (1958), *Assistant Professor of Nursing*
Diploma in Nursing, 1937 (Flower-Fifth Avenue Hospital, New York); R.N.; B.S., 1947, M.A., 1958 (New York University)

DAVID A. DAVIS (1952), *Professor of Surgery in Charge of Anaesthesiology*
M.D., 1941 (Vanderbilt)

HARRY ELLERBEE DAVIS (1931), *Professor of Dramatic Art and Director of The Carolina Playmakers*
A.B., 1927 (South Carolina); M.A., 1940 (Columbia)

JAMES EVANS DAVIS (1954), *Clinical Instructor in Surgery*
A.B., 1940 (North Carolina); M.D., 1943 (Pennsylvania)

LAMBERT DAVIS (1948), *Director of The University of North Carolina Press*
B.A., 1925, M.A., 1926 (Virginia)

OZRO LUKE DAVIS, JR. (1960), *Associate Director of the Fifth Year Program in Teacher Education*
B.A., 1949, M.Ed., 1950 (North Texas State); Ph.D., 1958 (George Peabody College for Teachers)

ROBERT LLOYD DAVIS (1960), *Associate Professor of Mathematics*
B.S., 1949, M.S., 1951 (Chicago); Ph.D., 1957 (Michigan)

RAYMOND HOWARD DAWSON (1960), *Assistant Professor of Political Science and Adviser in the General College*
B.A., 1949 (College of the Ozarks); M.A., 1951 (Vanderbilt); Ph.D., 1958 (North Carolina)

RICHARD EARL DAY (1961), *Assistant Professor of Law*
B.S., 1951 (Pennsylvania); J.D., 1957 (Michigan)

MARTHA DECKER DEBERRY (1961), *Acting Dean of Women*
A.B., 1953 (Florida)

WILLIAM WELLESLEY DEMERITT (1951), *Professor of Pedodontics, Assistant Dean of the School of Dentistry, and Superintendent of Dental Clinics*
D.D.S., 1938 (Emory)

FLOYD W. DENNY, JR. (1960), *Professor of Pediatrics*
B.S., 1944 (Wofford); M.D., 1946 (Vanderbilt)

16. Absent on leave, 1961-1962.
17. Resigned August 31, 1961.

KRISHNANATH BHASKAR DESHPANDE (1960), *Research Associate in Chemistry*
B.S., 1943, M.S., 1946, Ph.D., 1951 (University of Bombay, India)

EARL EDWARD DEUBLER, JR. (1956), *Research Affiliate in the Institute of Fisheries Research*
B.S., 1950 (Moravian College); Ph.D., 1955 (Cornell)

BRYCE SELIGMAN DEWITT (1956), *Professor of Physics and Director of the Institute for Field Physics*
S.B., 1943, M.A., 1947, Ph.D., 1950 (Harvard)

CÉCILE MORETTE DEWITT (1956), *Visiting Research Professor of Physics and Director of the Institute of Natural Science*
License-es-sciences, 1943 (University of Caen, Calvados, France); Diplôme d'Etudes Superieurers, 1944, Doctorat d'Etat, 1947 (University of Paris, France)

[18]RUTH A. DILLARD (1959), *Instructor in Pediatrics*
A.B., 1947 (Mount Holyoke); M.D., 1951 (Pennsylvania)

JAMES WESLEY DIMMICK (1955-58; 1959), *Instructor in Modern Civilization*
A.B., 1953, M.A., 1954 (Florida)

JAMES TALMADGE DOBBINS (1918), *Professor of Chemistry, Emeritus (1960)*
A.B., 1911, A.M., 1912, Ph.D., 1914 (North Carolina)

DAN BYRON DOBBS (1961), *Assistant Professor of Law*
B.A., 1956, LL.B., 1956 (Arkansas); LL.M., 1961 (Illinois)

DAVID PHILLIP DOBSON (1955), *Professor of Prosthodontics*
D.D.S., 1941, M.S., 1942 (State University of Iowa)

MARGARET BAGGETT DOLAN (1950), *Professor of Public Health Nursing*
Diploma, 1935 (School of Nursing, Georgetown University); R.N.; B.S.P.H.N., 1944 (North Carolina); M.A., 1953 (Columbia)

JAMES FORD DONNELLY (1955), *Clinical Associate Professor of Obstetrics and Gynecology and Visiting Associate Professor of Maternal and Child Health*
A.B., 1935 (Harvard); M.D., 1939 (Chicago)

[19]ELINOR DEMON DORRIES (1961), *Instructor in Preventive Medicine*
B.A., 1951 (San Francisco College); B.S., 1956 (California)

ELISHA PEAIRS DOUGLASS (1952), *Associate Professor of History*
A.B., 1939 (Princeton); M.S., 1941 (Columbia); Ph.D., 1949 (Yale)

ALLAN WATSON DOWNIE (1957), *Assistant Professor of Neurologic Medicine*
M.B., Ch.B., 1946 (Aberdeen, Scotland)

JOHN PAUL DREHER (1961), *Assistant Professor of Philosophy*
B.A., 1955 (St. Peter's College); M.A., 1959 (Fordham); Ph.D., 1961 (Chicago)

FRANK MARION DUFFEY (1946), *Professor of Spanish and Associate Dean of the College of Arts and Sciences*
A.B., 1938 (Miami University); A.M., 1940, Ph.D., 1950 (North Carolina)

GORDON SHELTON DUGGER (1954), *Associate Professor of Surgery (Neuro-Surgery)*
A.B., 1941 (North Carolina); M.D., 1945 (Johns Hopkins)

[20]DAVID BEATTIE DUNCAN (1956), *Professor of Statistics*
B.Sc.Agr., 1938, B.A., 1941 (Sydney); Ph.D., 1947 (Iowa State)

RALPH LIVINGSTON DUNLAP (1957), *Assistant Professor of Psychology in Departments of Psychiatry and Psychology*
A.B., 1949 (Antioch); M.A., 1951, Ph.D., 1953 (Ohio State)

JOHN EDWARD DYKSTRA (1940), *Professor of Industrial Management*
C.E., 1930 (Rensselaer); M.B.A., 1932, D.C.S., 1936 (Harvard)

PATRICK F. EAREY (1957), *Lecturer in Physical Education and Head Swimming Coach*
A.B., 1951, M.A., 1952 (North Carolina)

ELEANOR BEAMER EASLEY (1953), *Clinical Assistant Professor of Obstetrics and Gynecology*
B.A., 1928 (Idaho); M.A., 1929 (Iowa); M.D., 1934 (Duke)

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18. Absent on leave.
19. Effective October 1, 1961.
20. Resigned January 1, 1961.

MYRL LUA-FRANCES EBERT (1952), *Associate Professor of Librarianship and Librarian, Division of Health Affairs*
B.S., 1943, B.S. in L.S., 1945 (Peabody); M.S., 1951 (Columbia)

STACY KNIGHT EBERT (1953), *Lecturer in Education*
B.A., 1939 (State Teachers College, Florence, Alabama); M.A., 1950 (Peabody)

CHARLES ERNEST EDGE (1958), *Assistant Professor of English and Adviser in the College of Arts and Sciences*
A.B., 1947, M.A., 1948 (North Carolina); Ph.D., 1958 (Duke)

FLOYD HARRIS EDMISTER (1922), *Professor of Chemistry, Emeritus (1952)*
B.S., 1912, Ph.D., 1918 (Syracuse); M.S., 1913 (Louisiana State)

JOHN DILLARD EDWARDS (1960), *Lecturer in Accounting*
B.S., 1949 (Louisiana Polytechnic Institute); M.B.A., 1957 (Louisiana State); C.P.A. (Louisiana State)

JOHN EHLE (1951), *Associate Professor of Radio, Television, and Motion Pictures*
A.B., 1949, A.M., 1953 (North Carolina)

WILLIAM J. EICHMAN (1960), *Research Associate in Psychology*
B.S., 1950 (Rutgers); M.A., 1953, Ph.D., 1955 (Iowa)

NORMAN ELLSWORTH ELIASON (1946), *Professor of English*
A.B., 1927 (Luther College); M.A., 1931 (Iowa); Ph.D., 1936 (Johns Hopkins)

FRED WILSON ELLIS (1944), *Associate Professor of Pharmacology*
B.S., 1936 (South Carolina); M.S., 1938 (Florida); Ph.D., 1941 (Maryland); M.D., 1951 (Duke)

ROBERT CLAUDE ELSTON (1960), *Assistant Professor of Biostatistics*
B.A., 1955, Dip. Ag., 1956 (Cambridge); Ph.D., 1959 (Cornell)

STEPHEN ALBERT EMERY (1928), *Professor of Philosophy*
A.B., 1923, Ph.D., 1928 (Cornell)

WILLIAM LOUIS ENGELS (1937), *Professor of Zoology*
B.S., 1930 (Notre Dame); Ph.D., 1937 (California)

ALFRED GARVIN ENGSTOM (1936), *Alumni Distinguished Professor of French (1961)*
A.B., 1933, A.M., 1935, Ph.D., 1941 (North Carolina)

PRESTON HERSCHEL EPPS (1938), *Kenan Professor of Greek (1955), Emeritus (1960)*
A.B., 1915, A.M., 1917 (North Carolina); Ph.D., 1928 (Chicago)

CHARLES JOHN ERASMUS (1960), *Associate Professor of Anthropology and Research Associate in the Institute for Research in Social Science*
A.B., 1942 (U.C.L.A.); M.A., 1950, Ph.D., 1955 (California)

CHARLES PERRY ERICKSON (1931), *Director of Athletics*
S.B. in Civ. Eng'g., 1931 (North Carolina)

GLEN WALTER ERICKSON (1960), *Research Associate in Physics*
B.S., 1955, Ph.D., 1960 (Minnesota)

MARILYN TARASIEWICZ ERICKSON (1961), *Assistant Professor of Psychology in the Department of Psychiatry*
A.B., 1957 (Pembroke); M.A., 1959 (Brown); Ph.D., 1961 (Washington)

SALVATORE R. ESPOSITO (1961), *Instructor in Physical Education*
B.S., 1955 (West Chester State College); M.Ed., 1961 (North Carolina)

GEORGE HYNDMAN ESSER, JR. (1948), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1942 (Virginia Military Institute); LL.B., 1948 (Harvard)

JOHN LAWRENCE ETHERINGTON (1961), *Clinical Assistant Professor of Surgery (Ophthalmology)*
M.D., C.M., 1936 (Queen's University, Canada)

MARVIN RATLEDGE EVANS (1952), *Professor of Oral Diagnosis and Treatment Planning*
D.D.S., 1936 (Maryland); M.S., 1955 (Pennsylvania)

JOHN ALEXANDER EWING (1954), *Associate Professor of Psychiatry*
M.B., Ch.B., 1946, M.D., 1954 (Edinburgh, Scotland); D.P.M., 1950 (London)

JOHN DOUGLAS EYRE (1957), *Associate Professor of Geography*
A.B., 1945, M.A., 1947, Ph.D., 1951 (Michigan)

WILLIAM EARL FAHY (1952), *Associate Professor in the Institute of Fisheries Research*
B.S., 1946 (Cornell); Ph.D., 1951 (Rochester)

WALTER ROBERT FALLAW, JR. (1960), *Instructor in Modern Civilization*
A.B., 1957 (Duke); M.A., 1959 (Princeton)

HAROLD JOSEPH FALLON (1961), *Instructor in Medicine*
B.A., 1953, M.D., 1957 (Yale)

THOMAS WOHLSEN FARMER (1952), *Professor of Neurological Medicine*
A.B., 1935, M.D., 1941 (Harvard); M.A., 1937 (Duke)

[21]JAMES E. FARNELL (1959), *Instructor in History*
B.A., 1951 (Reed College); M.A., 1953 (Chicago)

PRESTON COOKE FARRAR (1930), *Professor of Education, Emeritus (1945)*
A.B., 1891 (Washington and Jefferson); M.A., 1904 (Columbia)

[22]RASHI FEIN (1952), *Associate Professor of Economics and Research Associate in the Institute for Research in Social Science*
B.A., 1948, Ph.D., 1956 (Johns Hopkins)

GEORGE BURTON FERGUSON (1953), *Clinical Consultant in Surgery (Otolaryngology)*
M.D., 1932 (Jefferson); M.Sc., 1936 (Pennsylvania)

JOHN HOWARD FERGUSON (1943), *Professor of Physiology*
B.A., 1921 (Cape Town); B.A., 1925, M.A., 1931 (Oxford); M.D., 1928 (Harvard); L.M.S.S.A., 1931 (London); F.A.C.P., 1945; D.Sc., 1957 (Cape Town)

RICHARD ALEXANDER FEWELL (1952), *Clinical Assistant Professor of Medicine*
A.B., 1943 (Princeton); M.D., 1945 (Pennsylvania)

PAUL BARRY FIDDLEMAN (1959), *Clinical Research Associate in Psychology in the Department of Psychiatry*
A.B., 1955 (Brooklyn); M.A., 1957 (North Carolina)

SAMUEL FILLENBAUM (1958), *Assistant Professor of Psychology*
B.A., 1952 (City College of New York); M.A., 1954, Ph.D., 1956 (California)

JOHN PATON FILLEY (1958), *Associate Professor of Mental Health and Clinical Instructor in Psychiatry*
B.S., 1948, M.D., 1952 (Yale)

ARTHUR EMIL FINK (1945), *Professor of Social Work and Dean of the School of Social Work*
A.B., 1924, A.M., 1930, Ph.D., 1936 (Pennsylvania); M.S.W., 1937 (Pennsylvania School of Social Work)

RUTH WHITE FINK (1947), *Associate Professor of Physical Education and Director of Physical Education for Women*
B.Sc., 1926, A.M., 1936 (Ohio State)

JANET JORDAN FISCHER (1952), *Assistant Professor of Medicine and Instructor in Bacteriology*
A.B., 1944 (Vassar); M.D., 1948 (Johns Hopkins)

NEWTON DUCHAN FISCHER (1952), *Associate Professor of Surgery*
B.S., 1942, A.B., 1943, M.D., 1945 (Texas)

GEORGE W. FISHER, JR. (1957), *Clinical Instructor in Surgery*
B.S., 1940 (Wake Forest); M.D., 1943 (Bowman Gray)

FOSTER FITZ-SIMONS (1942), *Associate Professor of Dramatic Art and Staff Director of The Carolina Playmakers*
A.B., 1934 (North Carolina)

MALCOLM FLEISHMAN (1959), *Clinical Instructor in Medicine*
A.B., 1950, M.D., 1954 (North Carolina)

NANCY ANNE FLEMING (1961), *Instructor in Nursing (Medical-Surgical Nursing)*
B.S.N., 1959 (Emory); R.N.

RALPH GIBSON FLEMING (1946), *Clinical Associate Professor of Medicine*
M.D., 1936 (Pennsylvania)

WILLIAM LEROY FLEMING (1952), *Professor of Preventive Medicine and Assistant Dean of the School of Medicine for Education and Research*
B.A., 1925, M.S., 1927, M.D., 1932 (Vanderbilt)

21. Resigned September 1, 1961.
22. Absent on leave, 1961-1962.

CHARLES ELY FLOWERS, JR. (1952), *Professor of Obstetrics and Gynecology*
B.S., 1941 (The Citadel); M.D., 1944 (Johns Hopkins)

ENOLA SUE FLOWERS (1957), *Instructor in Physical Therapy*
B.S., 1944 (High Point College)

JOE SUMMERS FLOYD, JR. (1956), *Associate Professor of Finance*
B.S., 1943 (Florida); M.A., 1944, Ph.D., 1950 (North Carolina)

JOSEPHINE BONE FLOYD (1957), *Assistant Cataloguer, Division of Health Affairs Library*
A.B., 1941 (Woman's College of Georgia); M.A., 1944, B.S. in L.S., 1945 (North Carolina)

JOHN BOYD FLYNN (1957), *Assistant Professor of Business Administration*
B.A., 1941 (Davidson); M.B.A., 1950 (Pennsylvania)

DIANE GUY FOGLEMAN (1958), *Instructor in Nursing*
B.S.N., 1957 (North Carolina); R.N.; M.S.N., 1960 (North Carolina)

ELEANOR ANN FORBES (1953), *Assistant Professor of Dental Hygiene*
R.D.H., B.S., 1953 (Temple)

CHRISTOPHER COLUMBUS FORDHAM III (1957), *Assistant Professor of Medicine*
M.D., 1951 (Harvard)

NEAL MILLS FORNEY, JR. (1956), *Assistant Director of the Institute of Government*
A.B., 1958 (North Carolina)

EARL ARWIN FORREST, JR. (1958), *Chief, Acquisitions Department, University Library*
B.S., 1938 (North Texas State College); B.S., 1947, M.S., 1951 (Columbia); Ph.D., 1961 (Illinois)

WILLIAM WOMBLE FORREST (1956), *Assistant Professor of Pathology (Part-time)*
B.S., 1946 (North Carolina); M.D., 1948 (Harvard)

[23]BENJAMIN EAGLES FOUNTAIN, JR. (1958), *Assistant Professor of Education*
A.B., 1950, M.Ed., 1952, Ph.D., 1958 (North Carolina)

CLIFFORD MCCLAIN FOUST, JR. (1957), *Assistant Professor of History and Adviser in the General College*
A.B., 1949 (Syracuse); M.A., 1951, Ph.D., 1957 (Chicago)

JOHN WORTH FOUST (1961), *Instructor in Surgery*
B.S., 1952, M.D., 1955 (North Carolina)

IRA FOWLER (1953), *Associate Professor of Anatomy*
B.S., 1942 (Louisiana Polytechnic Institute); M.S., 1949 (Louisiana State); Ph.D., 1952 (Northwestern)

RONALD ERNEST FOX (1961), *Instructor in Psychology in the Department of Psychiatry*
A.B., 1958, M.A., 1961 (North Carolina)

CARLYLE JAMES FRAREY (1954), *Associate Professor of Library Science and Acting Dean of the School of Library Science*
A.B., 1939 (Oberlin); B.S., 1947, M.S., 1951 (Columbia)

DAVID ALLISON FRASER (1961), *Associate Professor of Sanitary Engineering*
B.A. in Chem., 1947 (Pennsylvania); M.S. in Chem., 1956 (Xavier); D.Sc., 1961 (Cincinnati)

RICHARD LANE FRAUTSCHI (1958), *Assistant Professor of French and Adviser in the General College*
B.A., 1949 (Wisconsin); M.A., 1953, Ph.D., 1958 (Harvard)

KEENER CHAPMAN FRAZER (1921), *Professor of Political Science*
A.B., 1920 (Wofford); A.M., 1921 (North Carolina); dip. Institut Universitaire de Hautes Etudes Internationales, 1932 (Geneva); L.H.D. (Birmingham-Southern College); Honorary Graduate, The United States Naval War College

HERBERT W. FRED (1956), *Instructor in Music and Director of Bands*
B.M.E., 1945, M.M., 1949 (Northwestern)

DAVID FRANKLIN FREEMAN (1961), *Assistant Professor of Child Psychiatry*
B.S., 1948 (Wake Forest); M.D., 1951 (Bowman Gray)

ELIZABETH ANN FREEMAN (1961), *Instructor in Nursing (Maternal-Child Health Nursing)*
B.S.N., 1958 (Duke); R.N.; M.S.N. and Certificate in Nurse-Midwifery, 1961 (Yale)

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23. Resigned August 31, 1961.

JEAN FREEMAN (1941), *Lecturer in Library Science and Assistant to the Dean of the School of Library Science*
A.B. (L.S.), 1933 (Woman's College, North Carolina); B.A., 1958 (North Carolina)

KATHRYN EAVES FREEMAN (1954), *Pharmacy Librarian, Division of Health Affairs*
A.B. in L.S., 1929 (Woman's College, North Carolina)

FRANK SIKES FRENCH (1960), *Instructor in Pediatrics*
A.B., 1951 (Kansas); M.D., 1956 (Rochester)

HERSCHEL JEROME FREY (1961), *Instructor in Spanish*
A.B., 1957 (Texas Christian); M.A., 1958 (Wisconsin)

[24]IRIS WILCOCK FRIEDERICH (1961), *Lecturer in Classics*
B.A., 1936, M.A., 1938 (University of Melbourne)

WERNER PAUL FRIEDERICH (1935), *Kenan Professor of German and Comparative Literature (1959)*
A.M., 1929, Ph.D., 1932 (Harvard); Schweizerisches Staatsexamen, 1931

HENRY FLEMING FULLER (1956), *Clinical Associate Professor of Obstetrics and Gynecology*
B.S., 1932 (Wake Forest); M.D., 1936 (Pennsylvania)

JOHN THOMAS FULTON (1958), *Professor of Dental Epidemiology*
D.D.S., 1925 (Ohio State)

LOFTON LEROY GARNER (1931), *Associate Professor of Mathematics*
A.B., 1925, A.M., 1927 (North Carolina)

OSCAR DAVID GARVIN (1944), *Clinical Associate Professor of Preventive Medicine*
M.D., 1932 (Medical College of the State of South Carolina); M.P.H., 1939 (Johns Hopkins)

JAMES REUBEN GASKIN (1950), *Associate Professor of English and Associate Dean of the Graduate School*
A.B., 1942 (Chattanooga); Ph.D., 1952 (North Carolina)

SYLVESTER PARKER GAY (1952), *Clinical Associate Professor of Periodontology and Oral Pathology*
D.D.S., 1926 (Atlanta-Southern Dental College)

WILLIAM MONROE GEER (1947), *Instructor in Modern Civilization*
A.B., 1935 (The Citadel); M.A., 1936 (Emory)

CLAUDE SWANSON GEORGE, JR. (1954), *Professor of Industrial Management and Assistant Dean of the School of Business Administration*
B.S., 1943, M.S., 1951 (North Carolina); Ph.D., 1953 (State University of Iowa)

[25]WESLEY CRITZ GEORGE (1912), *Professor of Histology and Embryology, Emeritus*
A.B., 1911, A.M., 1912, Ph.D., 1918 (North Carolina)

JOACHIM DIETER GERATZ (1960), *Instructor in Pathology*
M.D., 1953 (J. W. Goethe University, Frankfort, Germany)

FREDERICK GEORGE GERMUTH, JR. (1959), *Visiting Associate Professor of Pathology*
A.B., 1942, M.D., 1945 (Johns Hopkins)

ROBERT J. GETTY (1958), *Paddison Professor of Classics (1958)*
B.A., 1928 (Queen's University of Belfast); B.A., 1930, M.A., 1934 (Cambridge); Fellow of the Royal Society of Canada, 1956

J. SULLIVAN GIBSON (1947), *Associate Professor of Geography*
B.A., 1926 (Abilene Christian College); Ph.M., 1929 (Wisconsin); Ph.D., 1934 (Clark)

THOMAS CHOMETON GIBSON (1959), *Assistant Professor of Medicine*
M.A., 1945, M.B., B.Chir., 1946 (Cambridge); M.R.C.P., 1955 (London)

FEDERICO GUILLERMO GIL (1943), *Professor of Political Science, Research Professor in the Institute for Research in Social Science, and Director of the Institute of Latin American Studies*
J.D., 1940, D.Pol.Sci., 1941, D.Dip.Law, 1942 (Habana)

RUTH GILPIN (1954), *Associate Professor of Social Work*
A.B., 1930 (Wilson); M.A., 1931 (Pittsburgh); M.S.W., 1940, Advanced Certificate, 1951, D.S.W., 1960 (Pennsylvania)

ROBERT LEE GLASS (1960), *Research Associate in Hospital Administration*
A.B., 1920 (Earlham College); M.D., 1924 (Michigan)

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24. Fall semester, 1961-1962.
25. Retired July 1, 1961.

RICHARD LEE GLASSER (1957), *Assistant Professor of Physiology*
A.B., 1949 (Johns Hopkins); Ph.D., 1957 (Maryland)

EDWARD GLASSMAN (1960), *Assistant Professor of Biochemistry*
B.A., 1949, M.S., 1951 (New York University); Ph.D., 1955 (Johns Hopkins)

BERNARD GLUECK, SR. (1956), *Visiting Clinical Professor of Psychiatry*
M.D., 1909 (Georgetown)

JAMES LOGAN GODFREY (1936), *Professor of English History and Dean of the Faculty*
A.B., 1931 (Roanoke); A.M., 1933 (North Carolina); Ph.D., 1942 (Chicago)

HAROLD LACY GODWIN (1956), *Clinical Assistant Professor of Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)

JOHN BROWN GOEHRING (1960), *Instructor in Chemistry*
B.S., 1956 (Davidson)

HARRY GOODER (1961), *Assistant Professor of Bacteriology*
B.Sc., 1949, Ph.D., 1952 (Leeds University, England); Fellow of the Royal Institute of Chemistry, 1960

CARL WILLIAM GOTTSCHALK (1953), *Professor of Medicine and Physiology*
B.S., 1942 (Roanoke College); M.D., 1945 (Virginia)

HILTON T. GOULSON (1957), *Associate Professor of Parasitology*
A.B., 1952 (Luther College); M.S.P.H., 1953, Ph.D., 1957 (North Carolina)

JOHN BORDEN GRAHAM (1946), *Professor of Pathology*
B.S., 1938 (Davidson); M.D., 1942 (Cornell)

WILLARD J. GRAHAM (1952), *Professor of Accounting and Director of the Executive Program, School of Business Administration*
A.B., 1921, LL.D. (Tarkio College); A.M., 1924, Ph.D., 1934 (Chicago); C.P.A., 1925 (State of Illinois)

WILLIAM ALEXANDER GRAHAM (1940), *Clinical Instructor in Obstetrics and Gynecology*
A.B., 1928 (North Carolina); M.D., 1932 (Pennsylvania)

RUSSELL B. GRAVES (1958), *Associate Professor of Dramatic Art*
B.F.A., 1948, M.F.A., 1949 (Carnegie Institute of Technology); Ph.D., 1953 (Florida State)

FLETCHER MELVIN GREEN (1921), *Kenan Professor of History (1946) and Research Professor in the Institute for Research in Social Science*
Ph.B., 1920 (Emory); A.M., 1922, Ph.D., 1927 (North Carolina); Litt.D. (Emory, Washington and Lee)

PHILIP PALMER GREEN, JR. (1949), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1943 (Princeton); LL.B., 1949 (Harvard)

BERNARD GEORGE GREENBERG (1949), *Professor of Biostatistics*
B.S., 1939 (College of the City of New York); Ph.D., 1949 (North Carolina State)

THOMAS YOUNG GREET (1958), *Instructor in English*
B.A., 1947 (Duke); M.A., 1950 (North Carolina)

ROBERT ALLEN GREGG (1960), *Clinical Assistant Professor of Preventive Medicine (Rehabilitation)*
M.D., 1948 (Medical College of South Carolina)

VICTOR AUGUST GREULACH (1949), *Professor of Botany*
A.B., 1929 (DePauw); M.S., 1933, Ph.D., 1940 (Ohio State)

JOHN HAWKINS GRIBBIN (1961), *Associate University Librarian*
A.B., 1942 (North Carolina); B.L.S., 1947, M.L.S., 1951 (California); Ph.D., 1958 (Chicago)

JAMES ENNIS GRIZZLE (1957), *Assistant Professor of Biostatistics in the Institute of Statistics and the School of Public Health*
B.S., 1951 (Berea College); M.S., 1953 (Virginia Polytechnic Institute); Ph.D., 1960 (North Carolina State)

[26]DORIS CLARE GROSSKREUTZ (1960), *Associate Professor of Surgery (Anesthesiology)*
B.S., 1940, M.D., 1942 (Illinois)

RUSSELL MARVIN GRUMMAN (1925), *Director of the Extension Division, Emeritus (1956)*
B.H., 1918 (Springfield College)

26. Resigned September 30, 1961.

ELLEN ELIZABETH GUILLOT (1957), *Associate Professor of Medical Social Work*
B.S., 1930 (Simmons College); M.A., 1938, Ph.D., 1943 (Pennsylvania)

[27]JOHN GULICK (1955), *Associate Professor of Anthropology and Research Associate in the Institute for Research in Social Science*
A.B., 1949, A.M., 1951, Ph.D., 1953 (Harvard)

JUNE URIAH GUNTER (1946), *Visiting Assistant Professor of Pathology*
A.B., 1931 (North Carolina); M.D., 1936 (Jefferson Medical College)

PAUL NEWMAN GUTHRIE (1946), *Professor of Economics*
A.B., 1926 (Tennessee); B.D., 1932 (Union Theological Seminary); M.A., 1932, Ph.D., 1946 (Columbia)

FRANZ GUTMANN (1939), *Lecturer in Economics, Emeritus (1949); Professor of Economics, Emeritus, University of Göttingen*
D.Ec., 1904 (Strasbourg)

JOHN MINOR GWYNN (1924), *Professor of Education*
A.B., 1918, A.M., 1927 (North Carolina); Ph.D., 1935 (Yale)

WALDO EMERSON HAISLEY (1960), *Associate Professor of Physics*
B.A., 1936 (Texas); M.A., 1940 (Columbia); Ph.D., 1952 (North Carolina)

DOUGLAS DENTON HALE, JR. (1961), *Instructor in Modern Civilization*
B.A., 1952 (Rice); M.A., 1957 (Missouri); Ph.D., 1961 (Texas)

FRANCES HUNT HALL (1959), *Assistant Law Librarian*
A.B., 1940 (Woman's College, North Carolina); M.A., 1955, M.S. in L.S., 1957, J.D., 1959 (North Carolina)

LOUISE MCGWIGAN HALL (1957), *Chief, Humanities Division, University Library*
A.B., 1940, B.S. in L.S., 1941 (North Carolina); M.A., 1944 (Illinois)

ROY GRIFFITH HALL, JR. (1956), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1951, J.D., 1955 (North Carolina)

WILLIAM JACKSON HALL (1957), *Associate Professor of Statistics*
A.B., 1950 (Johns Hopkins); M.A., 1951 (Michigan); Ph.D., 1955 (North Carolina)

GEORGE CAVERNO HAM (1951), *Professor of Psychiatry and Consultant in the Institute for Research in Social Science*
M.D., 1937 (Pennsylvania)

WILLIAM HAMBURGER (1961), *Associate Professor of Economics*
B.A., 1948, M.A., 1950, Ph.D., 1951 (Chicago)

[27a]JOSEPH GRÉGOIRE DE ROULHAC HAMILTON (1906), *Kenan Professor of History and Political Science (1920), Emeritus (1948), Consultant of the Southern Historical Collection*
M.A., 1900 (University of the South); Ph.D., 1906 (Columbia); Litt.D. (University of the South; Washington and Lee); LL.D. (North Carolina)

FRANK WILLIAM HANFT (1931), *Professor of Law*
LL.B., 1924, A.B., 1929, LL.M., 1929 (Minnesota); S.J.D., 1931 (Harvard)

ANN CATON HANSEN (1958), *Research Associate Professor in Public Health Nursing*
B.S., 1952 (Johns Hopkins); M.P.H., 1956 (North Carolina)

OSBORNE BENNETT HARDISON, JR. (1957), *Associate Professor of English and Adviser in the General College*
B.A., 1949, M.A., 1950 (North Carolina); Ph.D., 1956 (Wisconsin)

[28]JACQUES HARDRÉ (1945), *Professor of French*
Bacc.Sciences-Languages, 1936 (Paris); A.B., 1937 (Guilford); A.M., 1941, Ph.D., 1948 (North Carolina)

ROY ALLEN HARE (1954), *Clinical Assistant Professor of Medicine*
B.S., 1942 (Wake Forest); M.D., 1945 (Bowman Gray)

EUGENE ALEXANDER HARGROVE (1954), *Clinical Associate Professor of Psychiatry*
A.B., 1939, M.D., 1942 (Texas)

JAMES WILLIAM HARKIN (1961), *Lieutenant, Supply Corps, United States Navy; Assistant Professor of Naval Science*
B.S. in Econ., 1953 (Minnesota)

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27. Absent on leave, 1961-1962.
27a. Died November 11, 1961.
28. Absent on leave, spring semester, 1962.

JAMES PENROSE HARLAND (1922-23; 1927), *Professor of Archaeology*
A.B., 1913, A.M., 1915, Ph.D., 1920 (Princeton)

HERBERT SPENCER HARNED, JR. (1958), *Associate Professor of Pediatrics*
B.S., 1942, M.D., 1945 (Yale)

CHARLES LINDY HARPER (1961), *Visiting Associate Professor of Public Health Administration*
B.A., 1948, M.S.P.H., 1950 (North Carolina)

GEORGE MILLS HARPER (1950), *Professor of English and Chairman of the Faculty*
A.B., 1940 (Culver-Stockton College); A.M., 1947 (Florida); Ph.D., 1951 (North Carolina)

ROBERT NORMENT HARPER (1957), *Clinical Instructor in Psychiatry*
M.D., 1951 (Bowman Gray)

HAYWOOD HOWARD HARRELL (1961), *Lieutenant (junior grade), United States Navy; Assistant Professor of Naval Science*
B.S., M.E., 1958 (Duke)

TYNDALL PEACOCK HARRIS (1957), *Clinical Instructor in Medicine and Associate University Physician*
B.S., 1947 (North Carolina); M.D., 1950 (Duke)

HARDWICK WILTON HARSHMAN (1961), *Assistant Professor of Education*
A.B., 1937 (Earlham College); A.M., 1939 (Indiana); B.D., 1945 (Garrett Theological Seminary); Ph.D., 1962 (Michigan)

JAMES ALFRED HART (1961), *Instructor in English*
B.A., 1947 (University of London); M.A., 1958 (South Carolina)

EARL HORACE HARTSELL (1936), *Associate Professor of English*
A.B., 1924, A.M., 1935, Ph.D., 1942 (North Carolina)

[29]WALTER H. HARTUNG (1948), *Professor of Pharmaceutical Chemistry, Emeritus (1956)*
A.B., 1918 (Minnesota); Ph.D., 1926 (Wisconsin)

ISAO HASHIMOTO (1961), *Research Associate in Chemistry*
B.S., 1956 (University of Hawaii); M.S., 1959, Ph.D., 1961 (Wisconsin)

DAVID ROLLO HAWKINS (1952), *Associate Professor of Psychiatry*
B.A., 1945 (Amherst); M.D., 1946 (Rochester)

[30]RUTH WARWICK HAY (1940), *Professor of Public Health Nursing*
Diploma, 1920 (Francis Payne Bolton School of Nursing, Western Reserve); R.N.; B.A., 1916 (Ohio Wesleyan); M.S., 1925 (Western Reserve)

GLEN HAYDON (1934), *Kenan Professor of Music (1951)*
A.B., 1918, A.M., 1921 (California); Ph.D., 1932 (Vienna)

DONALD BALES HAYMAN (1949), *Assistant Director of the Institute of Government*
A.B., 1940 (Kansas); A.M., 1947 (North Carolina)

MARGARET ELIZABETH HAYNES (1958), *Assistant Professor of Nursing (Outpatient Department)*
B.S.N., 1942 (Vanderbilt); R.N.; M.P.H., 1953 (North Carolina)

GEORGE ALEXANDER HEARD (1950), *Professor of Political Science and Dean of the Graduate School*
A.B., 1938 (North Carolina); M.A., 1948, Ph.D., 1951 (Columbia)

MILTON SYDNEY HEATH (1925), *Professor of Economics*
A.B., 1917 (Kansas); A.M., 1924, Ph.D., 1938 (Harvard)

MILTON SIDNEY HEATH, JR. (1957), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1949 (Harvard); LL.B., 1952 (Columbia)

CHRISTOPHER ROBIN HEATHCOTE (1961), *Visiting Research Associate in Statistics*
B.A., 1956 (University of Western Australia); M.A., 1958 (University of Melbourne); Ph.D., 1961 (Australian National University)

EDWARD MCGOWAN HEDGPETH (1934), *Clinical Associate Professor of Medicine and Director of Student Health Service*
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania); F.A.C.P., 1944

CLARENCE HEER (1927), *Kenan Professor of Economics (1945), Emeritus (1953)*
A.B., 1914 (Rochester); Ph.D., 1926 (Columbia)

29. Died September 29, 1961.
30. Absent on leave, fall quarter, 1961, and summer quarter, 1962.

BEVERLY TOM HEITMAN (1961), *Lecturer in Social Work*
A.B., 1945 (Greensboro College); M.S.W., 1950 (North Carolina)

ARCHIBALD HENDERSON (1899), *Kenan Professor of Mathematics (1925), Emeritus (1948)*
A.B., 1898, A.M., 1899, Ph.D., 1902 (North Carolina); Ph.D., 1915 (Chicago); D.C.L. (University of the South); LL.D. (Tulane; William and Mary); Litt.D. (Oglethorpe; Catawba; North Carolina)

CHARLES HENDERSON, JR. (1955), *Associate Professor of Classics and Dean of Student Affairs*
A.B., 1942 (Davidson); M.A., 1947, Ph.D., 1955 (North Carolina)

LUCILE KELLING HENDERSON (1932), *Professor of Library Science and Dean of the School of Library Science, Emeritus (1960)*
A.B., 1917 (Whitman College); B.L.S., 1921 (New York State Library School)

[31]JAMES RICHARD HENDRICKS (1949), *Associate Professor of Parasitology*
B.S., 1940 (Guilford); S.M., 1948, Ph.D., 1951 (North Carolina)

CATHERINE HENLEY (1949), *Research Associate in Zoology*
A.B., 1943, Ph.D., 1949 (North Carolina); M.A., 1947 (Johns Hopkins)

RUCKER STERLING HENNIS, JR. (1961), *Assistant Professor of Education*
A.B., 1952, M.A., 1956, Ph.D., 1961 (North Carolina)

MARY ELIZABETH HENRY (1946), *Bureau of Correspondence Instruction, Extension Division*
A.B., 1939 (North Carolina)

JOHN CARROLL HERION (1957), *Assistant Professor of Medicine*
B.S., 1949 (Davidson); M.D., 1953 (Harvard)

HARRIET LAURA HERRING (1925), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1913 (Meredith); A.M., 1918 (Radcliffe)

LOIS TORGESON HERRING (1958), *Assistant Professor of Nursing (Medical-Surgical Nursing)*
B.S.N.Ed., 1952 (Oregon State); R.N.; M.S.N.E., 1958 (Oregon)

WILLIAM THEODORE HERZOG (1959), *Research Associate in Public Health Education*
B.A., 1955 (Knox); M.S.P.H., 1958 (North Carolina)

ALBERT PRICE HEUSNER (1952), *Professor of Anatomy*
A.B., 1932 (Swarthmore); B.A., 1934, B.Sc., 1935 (Oxford); M.D., 1938 (Harvard)

WILLARD CHAPPELL HEWITT (1960), *Clinical Instructor in Medicine*
A.B., 1934, M.A., 1939 (North Carolina); M.D., 1943 (Virginia)

THOMAS FELIX HICKERSON (1909), *Kenan Professor of Applied Mathematics (1945), Emeritus (1952)*
Ph.B., 1904, A.M., 1907 (North Carolina); S.B. in Civ.Eng'g., 1909 (Massachusetts Institute of Technology)

JAMES BENTON HICKEY (1956), *Head Football Coach*
A.B., 1942 (William and Mary)

ROBIN DAVID STEWART HIGHAM (1957), *Assistant Professor of History*
A.B., 1950 (Harvard); M.A., 1953 (Claremont); Ph.D., 1957 (Harvard)

LESTER BODINE HIGLEY (1953), *Professor of Orthodontics*
B.A., 1922, M.S., 1934 (Grinnell); D.D.S., 1926 (Iowa)

JACQUELINE CATO HIJMANS (1959), *Instructor in Medicine*
M.D., 1949 (State University, Leyden, Holland)

CLEONE MAE HILL (1958), *Assistant Professor of Nursing (Public Health Nursing)*
Diploma in Nursing, 1945 (Garfield Memorial Hospital School of Nursing); R.N.; B.S., 1950 (Eastern Nazarene College); M.A., 1957 (Columbia)

JOHN BENJAMIN HILL (1952), *Assistant Professor of Pharmacology*
B.S., 1945 (Wisconsin); Ph.D., 1950, M.D., 1952 (Columbia)

MAY DAVIS HILL (1958), *Art Librarian*
B.A., 1943, M.A., 1944, B.S. in L.S., 1955 (North Carolina)

MICHAEL ARENDELL HILL, JR. (1921), *Professor of Mathematics*
A.B., 1920, A.M., 1922 (North Carolina)

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31. Absent on leave, 1961-1962.

REBECCA RIDGELY HILL (1959), *Assistant Professor of Nursing (Community Nursing)*
Diploma in Nursing, 1948 (Union Memorial Hospital, Baltimore); R.N.; B.S.N., 1952 (Western Reserve); M.S., 1959 (Duke)

SAMUEL SMYTHE HILL, JR. (1960), *Assistant Professor of Religion*
A.B., 1949 (Georgetown College, Kentucky); M.A., 1952 (Vanderbilt); B.D., 1953 (Southern Baptist Theological Seminary); Ph.D., 1960 (Duke)

ROBERT L. HILLIARD (1960), *Assistant Professor of Radio, Television, and Motion Pictures*
B.A., 1948 (Delaware); M.A., 1949, M.F.A., 1950 (Western Reserve); Ph.D., 1959 (Columbia)

MARTIN PATTERSON HINES (1959), *Visiting Associate Professor of Public Health Administration*
D.V.M., 1946 (Ohio State); M.P.H., 1949 (Harvard)

CHARLES EDWIN HINSDALE (1961), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1940 (North Carolina); LL.B., 1946 (George Washington)

[32]ROBIN LEDBETTER HINSON (1958), *Assistant Professor of Law and Assistant Dean of the School of Law*
B.S., 1953 (Davidson); J.D., 1958 (North Carolina)

RICHARD GRANT HISKEY (1958), *Associate Professor of Chemistry*
A.B., 1951 (Kansas State Teachers College); M.S., 1953 (Kansas State College); Ph.D., 1956 (Wayne State)

JOSEPH MARTIN HITCH (1952), *Clinical Professor of Medicine (Dermatology)*
A.B., 1929 (Delaware); M.D., 1933, M.S., 1938 (Virginia)

SETH GUILFORD HOBART, JR. (1955), *Clinical Instructor in Surgery (Otolaryngology)*
B.S., 1941 (Virginia Military Institute); M.D., 1950 (Virginia)

RICHARD JUNIUS MENDENHALL HOBBS (1929), *Professor of Business Law, Emeritus (1960)*
A.B., 1909 (Guilford); A.B., 1911 (Haverford); LL.B., 1914 (Columbia)

SAMUEL HUNTINGTON HOBBS, JR. (1916), *Professor of Rural Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1916, A.M., 1917 (North Carolina); Ph.D., 1929 (Wisconsin)

WASSILY HOEFFDING (1949), *Professor of Statistics*
Ph.D., 1940 (Berlin)

ERICH PAUL HOFACKER, JR. (1959), *Instructor in German*
A.B., 1950, A.M., 1953 (Washington University); A.M. Certificate, 1959 (Chicago)

FRANCES BURNS HOGAN (1946-50; 1953), *Assistant Professor of Physical Education*
B.S., 1943 (Winthrop); M.A., 1946 (Iowa)

DAVID JONES HOLBROOK, JR. (1960), *Instructor in Biochemistry and Nutrition*
B.S., 1955 (William and Mary); Ph.D., 1959 (North Carolina)

GEORGE RUHLE HOLCOMB (1957), *Assistant Professor of Anatomy*
B.A., 1950, M.A., 1952, Ph.D., 1956 (Wisconsin)

MURRY WADE HOLLAND (1956), *Associate Professor of Crown and Bridge Prosthodontics*
A.B., 1952 (Elon); D.D.S., 1956 (North Carolina); M.Ed., 1961 (Duke)

WALTER HOLLANDER, JR. (1956), *Associate Professor of Medicine*
B.S., 1943 (Haverford); M.D., 1950 (Harvard)

ELIZABETH STEPHENS HOLLEY (1959), *Associate Professor of Public Health Nursing*
A.B., 1941 (South Carolina); Diploma in Nursing, 1944 (Johns Hopkins Hospital School of Nursing); R.N.; M.A., 1949 (Teachers College, Columbia University)

LYDIA SAY HOLLEY (1961), *Assistant Professor of Public Health Administration*
B.A., 1948 (Coker College); Cert. P.T., 1950 (Duke); M.P.H., 1961 (North Carolina)

HANSEL H. HOLLINGSWORTH (1961), *Lecturer in Social Work and Associate Director, Group Child Care Project*
A.B., 1949 (Mercer); M.S.S.W., 1951 (Vanderbilt)

FRANK WHITNEY HOLLOWELL (1960), *Commander, United States Navy; Associate Professor of Naval Science*
B.S., 1942 (United States Naval Academy); M.A., 1953 (Stanford)

32. Resigned August 31, 1961.

C. HUGH HOLMAN (1949), *Kenan Professor of English (1959)*
B.S., 1936, B.A., 1938 (Presbyterian College); Ph.D., 1949 (North Carolina)

URBAN TIGNER HOLMES, JR. (1925), *Kenan Professor of Romance Philology (1945)*
A.B., 1920 (Pennsylvania); A.M., 1921, Ph.D., 1923 (Harvard); Litt.D. (Washington and Lee)

ROY WALTER HOLSTEN (1960), *Lecturer in Business Administration and Assistant to the Dean of the School of Business Administration*
A.B., 1950 (North Carolina)

SAMUEL M. HOLTON (1948), *Professor of Education*
A.B., 1942, M.Ed., 1947 (Duke); B.S., 1943 (New York); M.A., 1947, Ph.D., 1948 (Yale)

MAX HOYT HOMMERSAND (1958), *Assistant Professor of Botany*
B.A., 1954, Ph.D., 1958 (California)

JOHN J. HONIGMANN (1951), *Professor of Anthropology and Research Professor in the Institute for Research in Social Science*
A.B. (Brooklyn College); M.A., 1943, Ph.D., 1947 (Yale)

CHARLES WRIGHT HOOKER (1949), *Professor of Anatomy*
A.B., 1930, A.M., 1932, Ph.D., 1933 (Duke)

MARY CUTLER HOPKINS (1948), *Mathematics-Physics Librarian*
B.A., 1928 (Western College for Women); B.L.S., 1929 (Western Reserve)

GEORGE FREDERICK HORNER (1926), *Professor of English*
A.B., 1921, A.M., 1924 (Pennsylvania State); Ph.D., 1938 (North Carolina)

SALLY MELVIN HORNER (1961), *Research Associate in Chemistry*
B.S., 1957, Ph.D., 1961 (North Carolina)

HAROLD HOTELLING (1946), *Kenan Professor of Statistics (1961)*
A.B., 1919, M.Sc., 1921 (Washington); Ph.D., 1924 (Princeton); LL.D. (Chicago)

ROBERT BURTON HOUSE (1957), *Chancellor, Emeritus (1957); University Professor of English and Classics*
A.B., 1916 (North Carolina); A.M., 1917 (Harvard); LL.D. (Catawba; Bowdoin)

ROBERT A. HOWARD (1951), *Associate Professor of Art and Adviser in the General College*
B.A., M.A., 1949 (Tulsa)

ALMONTE CHARLES HOWELL (1920), *Professor of English, Secretary of the Faculty, and Adviser to Foreign Students*
A.B., 1917 (Denison); M.A., 1920 (Columbia); Ph.D., 1924 (North Carolina); Prof. Hon., 1948 (San Carlos, Guatemala)

JAMES BALDWIN HOWELL (1957), *Clinical Associate Professor of Periodontology and Oral Pathology*
B.S., 1942 (Davidson); D.D.S., 1949 (Medical College of Virginia)

VINTON ASBURY HOYLE (1925), *Professor of Mathematics*
A.B., 1924, A.M., 1925 (North Carolina); Ph.D., 1930 (Princeton)

PAUL S. HUBBARD (1958), *Assistant Professor of Physics*
B.S., 1953 (Florida); A.M., 1954, Ph.D., 1958 (Harvard)

ARTHUR PALMER HUDSON (1930), *Kenan Professor of English (1951)*
B.S., 1913, M.A., 1920 (Mississippi); A.M., 1925 (Chicago); Ph.D., 1930 (North Carolina)

FRANCES HUEMER (1959), *Assistant Professor of Art*
A.B., 1944 (Duke); M.A., 1952, Ph.D., 1959 (New York University)

WILLIAM DAVIS HUFFINES (1957), *Assistant Professor of Pathology*
B.S., 1951, M.D., 1955 (North Carolina)

DAVID YERKES HUGHES (1961), *Instructor in English*
B.A., 1951 (California); M.A., 1954 (Columbia)

JACK HUGHES (1953), *Clinical Instructor in Surgery (Urology)*
A.B., 1939 (Davidson); M.D., 1943 (Duke)

JOHN THOMAS HUGHES (1960), *Visiting Instructor in Epidemiology*
B.S., 1940 (Wake Forest); D.D.S., 1947 (Baltimore College of Dental Surgery); M.P.H., 1958 (North Carolina)

ROBERT BRUCE HUGHES (1957), *Assistant Professor of Psychology in the Departments of Psychology and Psychiatry*
B.S., 1949, M.S., 1954 (Washington); Ph.D., 1959 (Illinois)

DOUGLAS GEORGE HUMM (1951), *Professor of Zoology*
B.S., 1939 (Yale); Ph.D., 1948 (Stanford)

CHARLES OLIVER HUMPHRIES (1952), *Clinical Instructor in Medicine*
A.B., 1941 (North Carolina); M.D., 1944 (Cornell)

WALTER SKELLIE HUNT (1957), *Clinical Instructor in Surgery (Orthopedics)*
B.S., 1937 (North Carolina); M.D., 1940 (Northwestern)

GROVER CLEVELAND HUNTER, JR. (1952), *Professor of Oral Pathology and Periodontology and Director of Dental Hygiene*
A.B., 1936, D.D.S., 1940 (Emory); M.S., 1941 (Illinois)

ROBERT ROSS HUNTLEY (1959), *Instructor in Medicine*
B.S., 1947 (Davidson); M.D., 1951 (Bowman Gray)

HOWARD RUSSELL HUSE (1920), *Professor of French and Italian*
Ph.B., 1913, Ph.D., 1930 (Chicago)

[33]HIROSHI ICHIMURA (1960), *Research Associate in Chemistry*
B.S., 1943, Sc.D., 1959 (Tokyo University, Japan)

HENRY RUDOLPH IMMERWAHR (1957), *Associate Professor of Classics*
Dottore in Lettere, 1938 (University of Florence, Italy); Ph.D., 1943 (Yale)

JAMES CARLTON INGRAM (1952), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
B.S., 1942 (Alabama); M.A., 1947 (Stanford); Ph.D., 1952 (Cornell)

ROY LEE INGRAM (1947), *Professor of Geology*
B.S., 1941 (North Carolina); M.S. in Geol. and Phys., 1943 (Oklahoma); Ph.D., 1948 (Wisconsin)

GEORGE LEE IRVIN III (1961), *Instructor in Surgery*
B.S., 1953 (Davidson); M.D., 1957 (North Carolina)

JOSEPH LOGAN IRVIN (1950), *Professor of Biochemistry and Nutrition*
B.S., 1934 (South Carolina); Ph.D., 1938 (Pennsylvania)

JOSEPH OSCAR IRWIN (1961), *Visiting Professor of Biostatistics*
B.A., 1921, M.A., 1923 (Cambridge); M.Sc., 1924, D.Sc., 1929 (London); Sc.D., 1936 (Cambridge)

WILLIAM LENTZ IVEY (1958), *Lecturer in Economics*
B.S., 1948 (Alabama Polytechnic Institute); M.S., 1951 (North Carolina)

HENRY LEROY IZLAR, JR. (1957), *Clinical Assistant Professor of Medicine*
B.A., 1946, M.D., 1948 (Duke)

RICHARD ELMER JAMERSON (1938), *Professor of Physical Education*
B.S., 1932 (Rice); M.A., 1934, Ed.D., 1949 (Teachers College, Columbia)

RICHARD CALVIN JARNAGIN (1958), *Assistant Professor of Chemistry*
B.S., 1952 (Southern Methodist); Ph.D., 1958 (Yale)

[34]THOMAS E. JEFFREY (1952), *Assistant Professor of Psychology*
B.S., 1934, Ph.D., 1957 (Chicago)

CARLYLE DAVID JENKINS (1960), *Assistant Professor of Epidemiology*
A.B., 1950, A.M., 1953 (Chicago); Ph.D., 1960 (North Carolina)

JOAN WILLIAMS JENKINS (1958), *Assistant Professor of Psychology in the Department of Psychiatry*
B.A., 1951 (Bryn Mawr); M.A., 1953, Ph.D., 1959 (Michigan)

RAMON BARTON JENKINS (1961), *Instructor in Medicine*
B.A., 1951, M.B., B.Ch., 1954, M.A., 1955 (Cambridge)

WILLIAM SUMNER JENKINS (1930), *Professor of Political Science and Director of the Bureau of Public Records Collection and Research*
A.B., 1924, A.M., 1925, Ph.D., 1927, LL.B., 1931 (North Carolina); M.A. in Military Government, 1943 (Columbia)

CHARLES EDWIN JENNER (1950), *Professor of Zoology*
A.B., 1941 (Central College); A.M., 1949, Ph.D., 1951 (Harvard)

THOMAS H. JERDEE (1959), *Assistant Professor of Business Administration*
B.A., 1950 (Gustavus Adolphus College); M.A., 1956, Ph.D., 1961 (Minnesota)

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33. Resigned September 29, 1961.
34. Absent on leave, 1961-1962.

LUCIE JESSNER (1955), *Professor of Psychiatry*
Ph.D., 1920 (University of Frankfurt, Germany); M.D., 1926 (University of Koenigsberg, Germany)

DONALD CHARLES JICHA (1960), *Assistant Professor of Chemistry*
B.S., 1955 (Illinois); Ph.D., 1960 (Ohio State)

[35]KATHARINE JOCHER (1924), *Professor of Sociology and Research Professor in the Institute for Research in Social Science, Emeritus*
A.B., 1922 (Goucher); A.M., 1923 (Pennsylvania); Ph.D., 1929 (North Carolina); LL.D., (Goucher)

DELL BUSH JOHANNESEN (1957), *Assistant Professor of Economics*
B.S., 1943, M.S., 1951, Ph.D., 1956 (North Carolina)

CALLIE MARGARET JOHNSON (1959), *Nursing Librarian, Division of Health Affairs Library*
R.N.; B.S., 1933 (Virginia); M.P.H., 1950 (North Carolina)

CECIL SLATON JOHNSON (1931), *Professor of History*
A.B., 1922 (Mississippi College); M.A., 1924 (Virginia); Ph.D., 1932 (Yale); LL.D. (William Carey College)

DAVID DONOVAN JOHNSON (1961), *Instructor in Spanish*
A.B., 1954, M.A., 1958 (Kansas)

[36]GEORGE JOHNSON, JR. (1960), *Assistant Professor of Surgery*
B.S., 1949 (North Carolina); M.D., 1952 (Cornell)

GUY BENTON JOHNSON (1924), *Professor of Sociology and Anthropology and Research Professor in the Institute for Research in Social Science*
A.B., 1921 (Baylor); A.M., 1922 (Chicago); Ph.D., 1927 (North Carolina)

JAMES DONALD JOHNSON, JR. (1961), *Acting Assistant Professor of Sanitary Engineering*
B.S., 1957 (U.C.L.A.)

MARJORY WILSON JOHNSON (1961), *Instructor in Physical Therapy*
B.S., 1943 (Woman's College, North Carolina)

THOMAS HATCHER JOHNSON (1961), *Instructor in Physical Education*
B.A., 1957, M.A., 1959 (North Carolina)

BETTY R. JOHNSTON (1960), *Research Associate in Physiology*
B.S., 1947 (Texas Women's University); M.S., 1953 (Michigan State)

CHARLES LOUIS JOHNSTON, JR. (1956-1959; 1960), *Assistant Professor of Physiology*
A.B., 1947, M.S., 1949 (North Carolina); M.D., 1953 (Pennsylvania)

ANNIE LEE JONES (1958), *Associate Professor of Education*
A.B., 1939, M.A., 1951 (East Carolina College); Ed.D., 1958 (Boston)

CLAIBORNE STRIBLING JONES (1944), *Professor of Zoology and Associate Dean of the General College*
A.B., 1935 (Hampden-Sydney); M.A., 1940, Ph.D., 1944 (Virginia)

FLOYD BURTON JONES (1950), *Professor of Mathematics*
B.A., 1932, Ph.D., 1935 (Texas)

JOSEPH KEMPTON JONES (1952), *Clinical Instructor in Medicine*
A.B., 1944, M.D., 1946 (Duke)

LYLE VINCENT JONES (1957), *Professor of Psychology and Director of the Psychometric Laboratory*
B.S., 1947, M.S., 1948 (Washington); Ph.D., 1950 (Stanford)

SAMUEL SHEPARD JONES (1955), *Burton Craige Professor of Political Science (1956)*
A.B., 1930 (Georgetown College, Kentucky); M.A., 1931 (Kentucky); Ph.D., 1936 (Oxford)

WILLIAM BURNS JONES, JR. (1960), *Visiting Assistant Professor of Epidemiology*
B.S., 1951 (The Citadel); M.D., 1955 (Medical College of South Carolina); M.P.H., 1960 (North Carolina)

[37]ARTHUR MELVILLE JORDAN (1923), *Professor of Educational Psychology, Emeritus*
A.B., 1907 (Randolph-Macon); A.M., 1909 (Trinity College); Ph.D., 1919 (Columbia)

WELDON HUSKE JORDAN (1957), *Clinical Instructor in Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)

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35. Retired July 1, 1961.
36. Effective October 1, 1961.
37. Retired July 1, 1961.

ALBERT WILLOUGHBY JOWDY (1960), *Assistant Professor of Pharmacy Administration*
S.B., 1943, M.S., 1949, Ph.D., 1955 (North Carolina)

WILLIAM STAFFORD JOYNER (1955), *Clinical Instructor in Medicine*
B.S., 1948 (Davidson); M.D., 1952 (Harvard)

KAI JURGENSEN (1944), *Associate Professor of Dramatic Art*
A.B., 1937 (Montana); A.M., 1943 (North Carolina)

GEORGE KACHERGIS (1949), *Associate Professor of Art*
Diploma, 1940, B.F.A., 1946, M.F.A., 1948 (The Art Institute of Chicago)

GORDON DAYTON KAGE (1959), *Lieutenant Colonel, United States Air Force, Professor of Air Science*
B.A., 1936 (Coe College)

MARGARET ELLEN KALP (1947), *Associate Professor of Library Science*
B.A., 1936 (New Jersey College for Women); M.A. in L.S., 1942 (Michigan)

FRANCIS JOSEPH KANE, JR. (1961), *Instructor in Psychiatry*
B.S., 1949 (Iona College); M.D., 1953 (New York Medical College)

BERTON H. KAPLAN (1960), *Instructor in Mental Health*
B.S., 1951 (Virginia Polytechnic Institute); M.S., 1952 (North Carolina)

ELLEN BRAUER KAPLAN (1961), *Research Associate in Biostatistics*
B.S., 1957 (North Carolina)

LEO KATZ (1961), *Ford Foundation Visiting Professor of Economics*
B.S.E.E., 1936 (Lawrence Institute of Technology); M.A., 1938 (Wayne); Ph.D., 1945 (Michigan)

CORNELIUS TIMPSON KAYLOR (1947), *Associate Professor of Anatomy*
A.B., 1931 (Wesleyan); M.S., 1933 (Rutgers); Ph.D., 1936 (Princeton)

MARTIN H. KEELER (1957), *Assistant Professor of Psychiatry*
B.A., 1949 (New York University); M.D., 1953 (New York Medical College)

ALAN KEITH-LUCAS (1950), *Alumni Distinguished Professor of Social Work (1961) and Director, Group Child Care Project*
B.A., 1931, M.A., 1935 (Trinity College, Cambridge); M.Sc. (Soc. Admin.), 1939 (Western Reserve); Ph.D., 1955 (Duke)

MARY FRANCES KELLAM (1945), *Assistant Professor of Physical Education*
B.S., 1944 (Woman's College, North Carolina); A.M., 1948 (North Carolina)

JOHN ESTEN KELLER (1943-46; 1950), *Professor of Spanish*
B.A., 1940, M.A., 1942 (Kentucky); Ph.D., 1946 (North Carolina)

JAMES CLARENCE KELLETT, JR. (1961), *Assistant Professor of Pharmaceutical Chemistry*
B.S. in Phar., 1957 (South Carolina); M.S., 1959, Ph.D., 1961 (Purdue)

RICHARD STERLING KELLY, JR. (1957), *Clinical Instructor in Pediatrics*
B.S., 1942 (Davidson); M.D., 1945 (Jefferson)

[38]GILBERT LEROY KELSO (1951), *Associate Professor of Sanitary Science*
B.A., 1929 (Iowa); M.P.H., 1942 (Minnesota)

ELIZABETH LOUANNA KEMBLE (1950), *Professor of Nursing and Dean of the School of Nursing*
Diploma in Nursing, 1927 (College of Nursing and Health, University of Cincinnati); R.N.; B.S., 1940 (New York University); M.A., 1943, Ed.D., 1948 (Teachers College, Columbia)

EDWARD MARTIN KENNEY (1949), *Head Golf Coach*

ROSEMARY MAY KENT (1951), *Associate Professor of Public Health Education*
A.B., 1933 (Agnes Scott); M.A., 1934 (Emory); M.P.H., 1946, Ph.D., 1949 (North Carolina)

LOUIS TODD KERMON (1952), *Clinical Assistant Professor of Medicine*
B.S., 1941 (Wake Forest); M.D., 1950 (Jefferson Medical College)

DWIGHT TALMADGE KERNODLE (1961), *Clinical Instructor in Medicine*
M.D., 1947 (Duke)

JOHN ROBERT KERNODLE (1957), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1935 (Elon); M.D., 1942 (Duke)

THOMAS CLEVELAND KERNS (1952), *Consultant in Surgery (Ophthalmology)*
A.B., 1907 (North Carolina); M.D., 1911 (Pennsylvania)

38. Absent on leave, 1961-1962.

THOMAS CLEVELAND KERNS, JR. (1958), *Clinical Instructor in Surgery (Ophthalmology)*
A.B., 1946 (North Carolina); M.D., 1950 (Duke)

GUSTIN THOMAS KIFFNEY, JR. (1959), *Assistant Professor of Surgery (Ophthalmology)*
A.B., 1951 (Holy Cross); M.D., 1955 (Albany)

TONG-SU KIM (1961), *Clinical Instructor in Psychiatry*
M.D., 1951 (Seoul National University, Korea)

ODELL CULP KIMBRELL, JR. (1960), *Clinical Instructor in Medicine*
B.A., 1947 (Duke); M.D., 1951 (Pennsylvania)

ALBERT WARREN KING (1958), *Lecturer in Social Work*
A.B., 1950, M.S.W., 1956 (North Carolina)

ARNOLD KIMSEY KING (1925), *Professor of Education and Director of the Summer Session*
A.B., 1925 (North Carolina); A.M., 1927, Ph.D., 1951 (Chicago)

JAMES BENJAMIN KING (1959), *Clinical Instructor in Pedodontics*
A.B., 1949 (North Carolina); D.D.S., 1953 (Pennsylvania)

JAMES EDWARD KING, JR. (1948), *Professor of History and Modern Civilization*
B.A., 1938 (Richmond); Ph.D., 1947 (Johns Hopkins)

RICHARD AUSTIN KING (1958), *Assistant Professor of Psychology*
A.B., 1954, M.A., 1955 (Cincinnati); Ph.D., 1959 (Duke)

JOHN ALVIN KIRKLAND (1958), *Clinical Instructor in Obstetrics and Gynecology*
B.S., 1948 (North Carolina); M.D., 1952 (Harvard)

CHARLES ATKINSON KIRKPATRICK (1946), *Professor of Marketing*
A.B., 1928, A.M., 1929 (Duke); D.C.S., 1933 (New York University)

FREDERICK JAMES KITTLER (1961), *Clinical Instructor in Pediatrics*
B.S., 1953 (Springhill College); M.D., 1957 (Louisiana State)

FRANK WYSOR KLINGBERG (1948), *Professor of History*
B.A., 1941, Ph.D., 1948 (U.C.L.A.)

SAMUEL BRADLEY KNIGHT (1941), *Professor of Chemistry*
B.S., 1934 (Clemson); S.M., 1937, Ph.D., 1938 (North Carolina)

KERMIT FREDERICK KNUDTZON (1953), *Professor, Department of Practice Administration and Dental Science*
D.D.S., 1927 (Illinois)

WILLIAM JULIAN KOCH (1950), *Associate Professor of Botany and Adviser in the General College*
A.B., 1947, M.A., 1950, Ph.D., 1956 (North Carolina)

ESZTER KOKAS (1960), *Assistant Professor of Physiology*
M.D., 1927 (University of Debrecen, Hungary)

JACOB KOOMEN (1959), *Visiting Associate Professor of Epidemiology*
B.S., 1939, M.D., 1945 (Rochester); M.P.H., 1957 (North Carolina)

JOHN KOSA (1960), *Associate Professor of Biostatistics*
Ph.D., 1937 (University of Budapest, Hungary)

JOHN CHARLES KOUNS (1953), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1937 (Emory)

GEORGE ELI KOURY (1960), *Clinical Instructor in Medicine*
A.B., 1941 (North Carolina); M.D., 1944 (Tulane)

LEOPOLD BOLESTA KOZIEBRODZKI (1959), *Acting Associate Professor of Economics and History*
Master of Law and Political Science, 1928 (Warsaw); Doctor of Law, 1956 (University of Paris)

EMERY THOMAS KRAYCIRIK (1960), *Clinical Instructor in Medicine*
M.D., 1945 (Duke)

CLIFTON HOLLAND KREPS, JR. (1955), *Wachovia Professor of Banking (1955)*
B.A., 1941 (William and Mary); M.A., 1942 (North Carolina); Ph.D., 1948 (Duke)

ROY RAYMOND KUEBLER, JR. (1958), *Associate Professor of Biostatistics*
A.B., 1933 (Dickinson); M.A., 1947 (Pennsylvania); Ph.D., 1958 (North Carolina)

JOHN GOTTHOLD KUNSTMANN (1955), *Professor of German*
Cand. rev. min., 1916 (Concordia Theological Seminary); Ph.D., 1938 (Chicago)

N. BRUCE KYLES (1959), *Lecturer in Psychiatry*
M.B., 1926, L.M.C.C., 1926 (Toronto)

ANDREW LACZKO (1957), *Clinical Instructor in Psychiatry*
M.D., 1950 (University of Munich, Germany)

JAMES CHRISTIAN LAMB III (1959), *Associate Professor of Sanitary Engineering*
B.S.C.E., 1947 (Virginia Military Institute); M.S., 1948, S.E., 1952, Sc.D., 1953 (Massachusetts Institute of Technology)

GEORGE SHERMAN LANE (1937), *Kenan Professor of Germanic and Comparative Linguistics (1949)*
B.A., 1926, M.A., 1927 (Iowa); Ph.D., 1930 (Chicago)

ROBERT DANA LANGDELL (1951), *Associate Professor of Pathology*
M.D., 1948 (George Washington)

[39]HAROLD QUENTIN LANGENDERFER (1953), *Professor of Accounting*
B.S., 1949 (Miami University); M.B.A., 1950 (Northwestern); D.B.A., 1954 (Indiana); C.P.A. (State of Indiana)

CORNELIUS LANSING (1957), *Assistant Professor of Psychiatry*
M.D., 1947 (Harvard)

DAVID T. LAPKIN (1959), *Professor of Economics*
B.S., 1942 (Harvard); M.A., 1947, Ph.D., 1957 (Columbia)

JOHN EDGAR LARSH, JR. (1943), *Professor of Parasitology*
A.B., 1939, M.S., 1940 (Illinois); Sc.D., 1943 (Johns Hopkins)

JOHN WAYNE LASLEY, JR. (1910), *Professor of Pure Mathematics*
A.B., 1910, A.M., 1911 (North Carolina); Ph.D., 1920 (Chicago)

WILLIAM EDMUND LASSITER (1960), *Instructor in Medicine*
A.B., 1950, M.D., 1954 (Harvard)

HENRY ALLEN LATANÉ (1958), *Lecturer in Economics*
B.A., 1928 (Richmond); M.B.A., 1930 (Harvard); Ph.D., 1958 (North Carolina)

FRANK E. LAW (1961), *Professor of Public Health Administration*
D.D.S., 1931 (Minnesota); M.P.H., 1952 (Harvard)

JAMES WALTER LEA (1956), *Clinical Assistant Professor of Medicine*
B.A., 1948, M.D., 1952 (Emory)

STURGIS ELLENO LEAVITT (1917), *Kenan Professor of Spanish (1945), Emeritus (1960)*
A.B., 1908 (Bowdoin); A.M., 1913, Ph.D., 1917 (Harvard); Litt.D. (Bowdoin; Davidson)

MAURICE WENTWORTH LEE (1956), *Professor of Economics and Business and Dean of the School of Business Administration*
B.S., 1933 (Illinois Institute of Technology); Ph.D., 1939 (Chicago)

HUGH TALMAGE LEFLER (1935), *Kenan Professor of History (1955)*
A.B., 1921, A.M., 1922 (Trinity College); Ph.D., 1931 (Pennsylvania); LL.D. (Duke)

[40]HARVEY EUGENE LEHMAN (1948), *Professor of Zoology*
A.B., 1941 (Maryville College); A.M., 1944 (North Carolina); Ph.D., 1948 (Stanford)

LILLIAN YOUNGS LEHMAN (1958), *Visiting Assistant Professor of Zoology*
A.B., 1949 (Catawba); M.A., 1952, Ph.D., 1955 (North Carolina)

RICHARD IVOR LEVIN (1959), *Assistant Professor of Industrial Management*
B.S. in Industrial Engr., 1951, M.S. in Industrial Engr., 1953 (North Carolina State); Ph.D., 1959 (North Carolina)

LEWIS LEVINE (1959), *Assistant Professor of Anthropology and Research Associate in the Institute for Research in Social Science*
A.B., 1949 (Brooklyn College); Ph.D., 1959 (Columbia)

[41]ELOISE RALLINGS LEWIS (1953), *Associate Professor of Nursing (Medical-Surgical Nursing)*
B.S., 1941 (Vanderbilt); M.S.Ed., 1951 (Pennsylvania); R.N.

HENRY WILKINS LEWIS (1946), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1937 (North Carolina); LL.B., 1940 (Harvard)

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39. Absent on leave, 1961-1962.
40. Absent on leave, spring, 1962, as Kenan Professor for the Term of One Semester.
41. Absent on leave, 1961-1962.

RUSSELL JAY LEWIS (1961), *Research Associate in Chemistry*
B.S., 1956, M.S., 1958 (Kentucky); Ph.D., 1961 (North Carolina State)

RICHARD WARREN LIEBAN (1961), *Associate Professor of Anthropology*
B.J., 1943 (Missouri); M.A., 1951, Ph.D., 1956 (Columbia)

RODDEY MILLER LIGON, JR. (1951), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1948, J.D., 1951 (North Carolina)

ROY LAWRENCE LINDAHL (1952), *Professor of Pedodontics*
B.S., 1950, D.D.S., 1950 (Southern California); M.S., 1952 (Michigan)

ROBERT BOYD LINDSAY (1947), *Clinical Instructor in Medicine and Associate University Physician*
B.S., 1936 (Davidson); M.D., 1940 (Jefferson Medical College)

ADRIAN SMITH LINEBERGER (1961), *Instructor in Pathology*
M.D., 1955 (North Carolina)

JOE BURTON LINKER (1918), *Professor of Mathematics*
A.B., 1918, A.M., 1920 (North Carolina); Ph.D., 1924 (Johns Hopkins)

ROBERT WHITE LINKER (1927), *Professor of Romance Languages*
A.B., 1925, A.M., 1928, Ph.D., 1933 (North Carolina)

MORRIS A. LIPTON (1959), *Associate Professor of Psychiatry*
B.S., 1935 (City College of New York); Ph.M., 1937, Ph.D., 1939 (Wisconsin); M.D., 1948 (Chicago)

WILLIAM FREDERICK LITTLE (1956), *Associate Professor of Chemistry and Assistant to the Dean of the Graduate School for Research Administration*
B.S., 1950 (Lenoir Rhyne); M.A., 1952, Ph.D., 1955 (North Carolina)

DAVID HALLAM LITTLEJOHN (1961), *Instructor in Spanish*
A.B., 1950, M.A., 1961 (North Carolina)

FRED YALE LOBOVSKY (1961), *Clinical Instructor in Medicine*
A.B., 1954, M.D., 1957 (Cornell)

WILLIAM DAVIS LOCKE (1958), *Major, United States Air Force; Assistant Professor of Air Science*
B.S., 1940 (High Point College)

CLEMENT SEARL LOGSDON (1947), *Professor of Marketing*
B.S., 1924 (Georgetown); M.A., 1928, Ph.D., 1940 (Ohio State)

ARTHUR HILL LONDON (1937), *Clinical Professor of Pediatrics*
B.S., 1925 (North Carolina); M.D., 1927 (Pennsylvania)

LAWRENCE FOUSHEE LONDON (1952), *Curator, Rare Book Room, University Library*
A.B., 1931, A.M., 1933, Ph.D., 1936 (North Carolina)

WILLIAM LORD LONDON (1961), *Clinical Instructor in Pediatrics*
B.S., 1952, M.D., 1955 (North Carolina)

CECIL MURRAY LONG (1959), *Technical Sergeant, United States Air Force; Instructor in Air Science*

DOROTHY ELIZABETH LONG (1952), *Reference Librarian, Division of Health Affairs*
A.B., 1929 (Woman's College, North Carolina); M.A., 1942 (Wisconsin); B.S. in L.S., 1946 (Illinois)

EUGENE ROBERT LONG, JR. (1949), *Professor of Psychology*
A.B., 1946, A.M., 1947, Ph.D., 1950 (Virginia)

VIRGINIA LONG (1961), *Instructor in Psychiatric Social Work*
A.B., 1936 (Goucher); M.S., 1940 (Western Reserve)

WILLIAM LUNSFORD LONG, JR. (1952), *Clinical Associate Professor of Medicine*
A.B., 1940 (North Carolina); M.D., 1943 (Virginia)

ANTHONY GEORGE LO RÉ (1960), *Instructor in Spanish*
A.B., 1948, M.A., 1949 (Louisiana State)

BILLY WADE LOVINGOOD (1961), *Instructor in Physical Education*
B.S., 1958 (Wake Forest); M.A., 1959 (North Carolina)

EDWARD EVERARD LOW (1959), *Clinical Instructor in Psychiatry*
B.Sc., 1949, M.B., B.S., 1952 (University College, London)

CAROL SUZANNE LOWRY (1961), *Instructor in Nursing (Psychiatric Nursing)*
B.S.N., 1958 (Emory); R.N.; M.S.N., 1959 (Maryland)

[42]MARY LOUISE LUCY (1952), *Chief, Circulation Department, University Library*
B.A., 1943 (Eastern Kentucky); B.S. in L.S., 1944 (Peabody); M.S. in L.S., 1953 (Columbia)

GEORGE DENNETT LUMB (1960), *Visiting Associate Professor of Pathology*
M.B., B.S., 1939 (St. Bartholomew's Medical College); M.D., 1946 (London University)

HERBERT ZACHAREUS LUND (1952), *Visiting Professor of Pathology*
A.B., 1928 (Utah); M.D., 1931 (Pennsylvania)

CECIL RHODES LUPTON (1958), *Assistant Professor of Oral Surgery*
D.D.S., 1954 (North Carolina)

EUGENE C. LUSCHEI (1959), *Assistant Professor of Philosophy*
B.A., 1949, M.A., 1951 (Nebraska); Ph.D., D.Phil., 1959 (University of Oxford, England)

NORVAL NEIL LUXON (1953), *Professor of Journalism and Dean of the School of Journalism*
B.S., 1923, M.A., 1931 (Ohio State); Ph.D., 1940 (U.C.L.A.)

JOHN FRANKLIN LYNCH, JR. (1953), *Clinical Assistant Professor of Pediatrics*
A.B., 1940 (North Carolina); M.D., 1944 (Jefferson)

JAMES WILEY LYNN, JR. (1954), *Clinical Assistant Professor of Pediatrics*
M.D., 1946 (Tulane)

CLIFFORD PIERSON LYONS (1946), *Kenan Professor of English (1961)*
A.B., 1925, Litt.D. (Cornell College); Ph.D., 1932 (Johns Hopkins)

JOHN CORIDEN LYONS (1923), *Professor of Romance Languages*
B.S., 1920, M.A., 1921 (William and Mary); Ph.D., 1927 (North Carolina)

JEAN C. MCALISTER (1954), *Clinical Instructor in Pediatrics*
B.A., 1921 (Agnes Scott); M.D., 1933 (Pennsylvania)

HUGH ALEXANDER MCALLISTER (1953), *Clinical Associate Professor of Obstetrics and Gynecology*
B.S., 1931 (Davidson); M.D., 1937 (Duke)

JOHN LEWIS MCCAIN (1956), *Clinical Assistant Professor of Medicine*
B.A., 1948 (North Carolina); M.D., 1952 (Virginia)

FREDERICK BAYS MCCALL (1926), *Professor of Law*
A.B., 1915 (North Carolina); LL.B., 1928 (Yale)

GERALD RALEIGH MACCARTHY (1922), *Professor of Geology and Geophysics*
A.B., 1921 (Cornell); A.M., 1924, Ph.D., 1926 (North Carolina)

PAULINE WAYNE MCCASKILL (1958), *Assistant Professor of Nursing (Medical-Surgical Nursing)*
Diploma in Nursing, 1937 (Catawba Sanatarium, Virginia); R.N.; B.S., 1954 (Duke); M.A., 1958 (Columbia)

WALTER STUART MCCLELLAN (1954), *Clinical Lecturer in Physiology*
B.A., 1916 (Colgate); M.D., 1923 (Harvard)

[42a]CLAUDE MCCLURE, JR. (1961), *Assistant Professor of Biochemistry and Nutrition*
B.S., 1947, M.D., 1950, M.S., 1958 (Wake Forest); Ph.D., 1960 (North Carolina)

FRANCES SIMMONS MCCONNELL (1961), *Research Associate in Public Health Education*
B.A., 1943 (Sweet Briar College); M.S.P.H., 1951 (North Carolina)

ELIZABETH BEATTY MCCUBBIN (1960), *Visiting Lecturer in Social Work*
A.B., 1929 (Delaware); M.A., 1930 (Cornell); M.S.W., 1945 (Pennsylvania)

HAROLD GRIER MCCURDY (1948), *Professor of Psychology and Research Professor in the Institute for Research in Social Science*
A.B., 1930, Ph.D., 1938 (Duke)

WILLIAM BENSON MCCUTCHEON, JR. (1961), *Clinical Instructor in Surgery*
A.B., 1948 (North Carolina); M.D., 1952 (Medical College of Virginia)

DONALD E. MACDONALD (1957), *Clinical Instructor in Psychiatry*
M.B., Ch.B., 1948 (University of St. Andrews, Scotland)

ROBERT MACE (1959), *Visiting Assistant Professor of Physics*
A.B., 1942 (Brooklyn College); M.S., 1949 (George Washington University); Ph.D., 1956 (North Carolina)

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42. Resigned November 22, 1961.
42a. Military leave, effective February 1, 1962.

RUTH LOWENS MACE (1956), *Research Associate in Public Law and Government*
A.B., 1944 (George Washington); B.S. in L.S., 1945 (Catholic University of America); M.R.P., 1956 (North Carolina)

WALTER THOMPSON MCFALL, JR. (1961), *Assistant Professor of Periodontology and Oral Pathology*
B.S., 1955, D.D.S., 1958 (North Carolina); M.S.D., 1961 (Washington)

EDWARD GRAFTON MCGAVRAN (1947), *Professor of Epidemiology and Dean of the School of Public Health*
A.B., 1924 (Butler); M.D., 1928 (Harvard Medical School); M.P.H., 1935 (Harvard School of Public Health); Sc.D. (Butler)

CLARENCE HENRY MCGREGOR (1946), *Burlington Industries Professor of Business Administration (1955)*
B.S., 1925 (Kansas State Teachers College of Emporia); M.B.A., 1930 (Kansas); Ph.D., 1937 (Northwestern)

[43]FRANK MCGUIRE (1952), *Head Basketball Coach*
B.S., 1936 (St. John's)

FRED HENRY MACINTOSH (1959), *Assistant Professor of English*
A.B., 1936 (South Carolina); M.A., 1941, Ph.D., 1955 (Duke)

KENNETH MURCHISON MCINTYRE (1948), *Bureau of Audio-Visual Education, Extension Division*
B.S., 1940 (Davidson); M.Ed., 1952 (North Carolina)

JOHN SASSER MCKEE, JR. (1954), *Lecturer in Psychiatry*
B.S., 1927 (North Carolina); M.D., 1929 (Pennsylvania)

ROBERT LAMBERT MCKEE (1946), *Professor of Chemistry and Adviser in the General College*
B.S., 1938 (Rice); M.A., 1940, Ph.D., 1943 (Texas)

WILLIAM JOHN MCKEE (1926), *Professor of Education in Extension Teaching, Emeritus (1956)*
C.E., 1909 (Cornell); M.A., 1919, Ph.D., 1930 (Columbia)

ERNEST LLOYD MACKIE (1921), *Professor of Mathematics*
A.B., 1917 (North Carolina); A.M., 1920 (Harvard); Ph.D., 1927 (Chicago)

LOREN CAREY MACKINNEY (1930), *Kenan Professor of Medieval History (1955)*
A.B., 1913 (Lawrence College); A.M., 1916 (Wisconsin); Ph.D., 1925 (Chicago)

LOREN GREENWOOD MACKINNEY (1958), *Assistant Professor of Pediatrics*
B.S., 1942, M.D., 1945 (Harvard)

ALSI ROBINETTE MCKINNON (1959), *Lecturer in Social Work*
B.S., 1938 (Wisconsin State Teachers College); M.A., 1950 (Chicago)

RODNEY LEONARD MCKNIGHT (1960), *Instructor in Surgery (Anesthesiology)*
B.S., 1952, M.D., 1955 (North Carolina)

WILLIAM ALBERT MCKNIGHT (1935), *Associate Professor of Spanish*
B.S., 1932 (Davidson); A.M., 1937, Ph.D., 1951 (North Carolina)

JOHN BLOUNT MACLEOD (1945), *Instructor in Modern Civilization*
LL.B., 1922 (Wake Forest); A.B., 1939, A.M., 1947 (North Carolina)

MARY MARGARET MCLEOD (1953), *Clinical Instructor in Pediatrics*
B.S., 1932 (North Carolina); M.D., 1935 (Vanderbilt)

ELIZABETH ANNE MCMAHAN (1961), *Assistant Professor of Zoology*
A.B., 1946, M.A., 1948 (Duke); Ph.D., 1960 (University of Hawaii)

ELIZABETH LOVELL MCMAHAN (1956), *Associate Professor of Public Health Education*
B.S., 1943 (Nebraska State Teachers College); M.S.P.H., 1944 (North Carolina)

DOUGALD MACMILLAN (1919), *Kenan Professor of English (1951)*
A.B., 1918, A.M., 1920, Ph.D., 1925 (North Carolina)

JOHN SHERIDAN MAC NERNEY (1952), *Associate Professor of Mathematics*
B.A., 1948, Ph.D., 1951 (Texas)

DANIEL ALLAN MACPHERSON (1923), *Professor of Bacteriology*
Ph.B., 1919, Sc.M., 1920 (Brown); Ph.D., 1929 (Chicago)

SAMUEL DACE MCPHERSON, JR. (1952), *Clinical Professor of Surgery (Ophthalmology)*
A.B., 1940 (North Carolina); M.D., 1943 (Johns Hopkins)

43. Resigned August 31, 1961.

GEORGE PHILIP MANIRE (1950), *Professor of Bacteriology*
B.S., 1940, M.S., 1941 (North Texas State College); Ph.D., 1949 (California)

ISAAC VAUGHN MANLY (1954), *Clinical Instructor in Surgery*
B.S., 1944 (North Carolina); M.D., 1946 (Harvard)

JAMES HOLLOWELL MANLY, JR. (1954), *Clinical Instructor in Surgery*
B.S., 1944 (North Carolina); M.D., 1946 (Pennsylvania)

LAWRENCE DALE MANN (1961), *Assistant Professor of Planning*
A.B., 1954, M.C.P., 1959, Ph.D., 1961 (Harvard)

VIRGIL IVOR MANN (1950), *Associate Professor of Geology*
B.A., 1942 (Macalester College); Ph.D., 1950 (Wisconsin)

WILLIAM ROBERT MANN (1949), *Professor of Mathematics*
A.B., 1941 (Rochester); Ph.D., 1949 (California)

ISAAC HALL MANNING, JR. (1941), *Clinical Associate Professor of Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Harvard)

HARRY BERST MARK, JR. (1960), *Research Associate in Chemistry*
B.A., 1956 (Virginia); Ph.D., 1960 (Duke)

ALLAN WHITLOCK MARKHAM (1961), *Assistant Director of the Institute of Government*
A.B., 1954, LL.B., 1961 (North Carolina)

EDWIN CARLYLE MARKHAM (1934), *Smith Professor of Chemistry (1951)*
A.B., 1923 (Trinity College); Ph.D., 1927 (Virginia)

DAN ANDERSON MARTIN (1957), *Assistant Professor of Medicine and Preventive Medicine*
B.S., 1949 (North Carolina); M.D., 1952 (Harvard)

FAYE JENKINS MARTIN (1958), *Instructor in Nutrition*
B.S., 1950 (Woman's College, North Carolina)

HUBERT MILTON MARTIN, JR. (1960), *Assistant Professor of Classics*
A.B., 1954 (Chattanooga); M.A., 1955, Ph.D., 1958 (Johns Hopkins)

JULIAN DEWEY MASON, JR. (1960), *Instructor in English*
A.B., 1953 (North Carolina); M.A., 1954 (George Peabody College for Teachers)

WILTON MASON (1949), *Professor of Music*
A.B., 1937, A.M., 1947, Ph.D., 1949 (North Carolina)

ROSALIE MCNEILL MASSENGALE (1957), *Head Cataloguer, Division of Health Affairs Library*
A.B., 1937 (Mount Holyoke); M.A., 1939, B.S. in L.S., 1955 (North Carolina)

DONALD ROWE MATTHEWS (1957), *Associate Professor of Political Science and Research Associate in the Institute for Research in Social Science*
A.B., 1948, M.A., 1951, Ph.D., 1953 (Princeton)

NORMAN W. MATTIS (1947), *Professor of English*
A.B., 1926 (Pittsburgh); M.A., 1929 (Cornell)

CHARLES URAL MAUNEY (1960), *Instructor in Medical Technology*
B.A., 1949, M.S., 1958 (North Carolina)

RENÉE MARIE MENEGAZ-BOCK (1959), *Instructor in Anatomy*
B.A., 1949 (Mount Mary, Pittsburgh); M.A., 1956 (Chicago)

JAMES BABCOCK MERIWETHER (1959), *Assistant Professor of English*
B.A., 1949 (South Carolina); M.A., 1952, Ph.D., 1958 (Princeton)

[44]EDWARD CLIFTON MERRILL, JR. (1960), *Professor of Education*
A.B., 1942 (North Carolina); M.S., 1948 (Tennessee); Ph.D., 1953 (George Peabody College for Teachers)

CHARLOTTE DAVIS MERRITT (1957), *Instructor in Medical Technology*
A.B., 1941 (College of Notre Dame)

EUGEN MERZBACHER (1952), *Professor of Physics*
Licentiate Diploma, 1943 (Istanbul); A.M., 1948, Ph.D., 1950 (Harvard)

ANCEL CLYDE MEWBORN (1961), *Assistant Professor of Mathematics*
A.B., 1954, M.A., 1957, Ph.D., 1959 (North Carolina)

GEORGE W. MEYER (1958), *Clinical Instructor in Surgery (Ophthalmology)*
B.A., 1942 (North Carolina); M.D., 1951 (Duke)

44. Resigned August 31, 1961.

HAROLD DIEDRICH MEYER (1921), *Professor of Sociology and Recreation Administration and Research Professor in the Institute for Research in Social Science*
A.B., 1912, A.M., 1916 (Georgia); LL.D. (Florida Southern College); R.S.D. (Salem College, Salem, W. Va.); L.H.D. (Catawba)

VASA MIHAILOVICH (1961), *Instructor in Russian*
B.A., 1956, M.A., 1957 (Wayne State)

ANDREW JOHN MIKETA (1960), *Clinical Instructor in Prosthodontics*
D.D.S., 1960 (North Carolina)

DANIEL FRANKLIN MILAM (1959), *Clinical Professor of Preventive Medicine*
A.B., 1916 (Vanderbilt); M.D., 1923 (Chicago); M.P.H., 1929 (Johns Hopkins)

AUGUSTUS TAYLOR MILLER, JR. (1939), *Professor of Physiology*
B.S., 1931, M.S., 1933 (Emory); Ph.D., 1939 (Michigan); M.D., 1953 (Duke)

BRADFORD MILLER (1959), *Research Associate in Biochemistry and Nutrition*
B.S., 1948, M.S., 1950 (Stetson); Ph.D., 1957 (North Carolina)

EULA HUX MILLER (1956-59; 1960), *Instructor in Nursing (Medical-Surgical Nursing)*
A.A., 1951 (Louisburg College); Diploma in Nursing, 1954, B.S.N., 1956 (Duke); R.N.

HORACE WILLIAM MILLER (1958), *Clinical Instructor in Medicine*
B.S., 1947 (Wake Forest); M.D., 1951 (Bowman Gray)

MILTON L. MILLER (1959), *Professor of Psychiatry*
A.B., 1925, M.D., 1929 (Harvard)

NORMAN MILLER (1958), *Associate Professor of Epidemiology and Biostatistics*
A.B., 1942 (Pennsylvania State); Ph.D., 1958 (Columbia)

ROBERT ALFRED MILLER (1955), *Assistant Professor of Library Science*
A.B., 1950, B.S. in L.S., 1953, A.M., 1953 (North Carolina)

ROBERT MOATS MILLER (1956), *Associate Professor of History and Adviser in the College of Arts and Sciences*
B.A., 1947 (Grinnell); M.A., 1949, Ph.D., 1955 (Northwestern)

JAMES R. MILLIGAN (1960), *Captain, United States Air Force; Assistant Professor of Air Science*
B.S., 1952 (East Texas State College)

CHARLES FREMONT MILNER (1937), *Professor of Education in Extension Teaching and Director of the Extension Division*
A.B., 1933 (Guilford); A.M. in Ed., 1941 (North Carolina)

MONTE GEORGE MISKA (1951), *Professor of Crown and Bridge Prosthodontics*
D.D.S., 1937 (Minnesota)

[45]KEITH EUGENE MIXTER (1953), *Music Librarian*
B.M., 1947 (Michigan State); M.A., 1951 (Chicago)

JACK E. MOHR (1958), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1949 (North Carolina); M.D., 1953 (Tufts)

ANN LOUISE MOLLESON (1953), *Assistant Professor of Nutrition*
B.S., 1944 (Tennessee); M.N.Sc., 1952 (Cornell)

DAVID GEETING MONROE (1947), *Professor of Political Science*
LL.B., 1926 (Baldwin-Wallace College); Ph.B., 1930 (Chicago); Ph.D., 1940 (Northwestern)

[46]JOHN THADDEUS MONROE, JR. (1961), *Instructor in Psychiatry*
B.S., 1951 (Davidson); M.D.. 1955 (North Carolina)

THOMAS ALBERT MONTGOMERY (1960), *Instructor in Surgery*
B.S., 1950 (Georgia); M.D., 1955 (Medical College of Georgia)

FRANK JAMES MONTROSE (1961), *Clinical Instructor in Medicine*
A.B., 1914, B.S., 1915, M.D., 1921 (Syracuse)

MARGARET CATHARINE MOORE (1960), *Instructor in Nursing (Medical-Surgical Nursing)*
B.S., 1935 (Woman's College, North Carolina); M.A., 1939 (New York); Diploma in Nursing, 1944 (Bellevue, New York); R.N.; M.S.N., 1960 (North Carolina)

MARGARET LEE MOORE (1957), *Assistant Professor of Physical Therapy*
B.S., 1942 (Madison); M.S., 1949 (Medical College of Virginia)

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45. Resigned September 30, 1961.
46. Effective November 1, 1961.

RANDOLPH MOORE (1961), *Lieutenant Commander, United States Navy; Assistant Professor of Naval Science*
B.B.A., 1948 (Georgia)

WILLIAM EVERETT MOORE (1958), *Captain, United States Air Force; Assistant Professor of Air Science*
A.B., 1951 (North Carolina)

LUCIA CAMERON MORGAN (1958), *Associate Professor of English*
B.A., 1931, M.A., 1937, Ph.D., 1954 (Louisiana State)

[47]LUCY SHIELDS MORGAN (1942), *Professor of Public Health Education*
A.B., 1922, M.S., 1932 (Tennessee); M.A., 1929 (Columbia); Ph.D., 1938 (Yale)

WILLIAM GARDNER MORGAN (1937), *Clinical Instructor in Medicine and Associate University Physician*
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania)

CHARLES ELLIOT MORRIS (1961), *Assistant Professor of Medicine*
B.A., 1950, M.A., 1951 (Denver); M.D., (Colorado)

JAMES FRANCIS MORRIS (1957), *Clinical Instructor in Pediatrics*
B.S., 1949 (North Carolina); M.D., 1952 (Louisville)

WARREN MORRIS (1957), *Instructor in Physical Education*
B.A., 1954, B.S., 1955 (Iowa State Teachers College)

JOSEPH L. MORRISON (1940), *Associate Professor of Journalism*
A.B., 1940 (North Carolina); A.M., 1958 (Columbia); Ph.D., 1961 (Duke)

JOHN CHARLES MORROW III (1949), *Professor of Chemistry*
S.B., 1944 (North Carolina); Ph.D., 1949 (Massachusetts Institute of Technology)

OLIN TERRELL MOUZON (1939), *Professor of Economics*
B.S. in Commerce, 1933 (Southern Methodist); Ph.D., 1940 (North Carolina)

JAMES JOSEPH MULLEN (1959), *Associate Professor of Journalism and Research Associate in the Institute for Research in Social Science*
B.B.A., 1947, M.A., 1949, Ph.D., 1954 (Minnesota)

CLYDE EDWARD MULLIS (1940), *Associate Professor of Physical Education*
A.B., 1938, A.M., 1940 (North Carolina)

JOHN MURCHISON MUNRO (1960), *Instructor in English*
B.A., 1955 (Durham University)

THOMAS LYNCH MURPHY (1959), *Clinical Instructor in Medicine*
A.B., 1940 (North Carolina); M.D., 1943 (Harvard)

HENRY VON MURRAY, JR. (1959), *Clinical Instructor in Crown and Bridge Prosthodontics*
B.S., 1954, D.D.S., 1957 (North Carolina)

ROYCE WILTON MURRAY (1960), *Assistant Professor of Chemistry*
B.S., 1957 (Birmingham Southern College); Ph.D., 1960 (Northwestern)

WILLIAM JAMES MURRAY (1959), *Instructor in Pharmacology*
B.S., 1955, Ph.D., 1959 (Wisconsin)

ARNOLD SAMUEL NASH (1947), *Professor of the History and Sociology of Religion*
B.Sc., 1928, M.Sc., 1930, M.A., 1933 (Liverpool); M.Sc.Econ., 1937 (London); D.D., 1946 (Coe College)

[48]MAURICE ALEXANDER NATANSON (1957), *Associate Professor of Philosophy*
A.B., 1945 (Lincoln Memorial); M.A., 1948 (New York); Ph.D., 1950 (Nebraska); D.S.Sc., 1953 (New School for Social Research)

CHARLENE BILLIE NELSON (1961), *Instructor in Physical Therapy*
B.S., 1951 (William and Mary)

[49]JOHN KENDALL NELSON (1959), *Instructor in History*
B.A., 1955 (Northwestern); M.A., 1956 (North Carolina)

ROBERT MELLINGER NELSON (1953), *Associate Professor of Orthodontics*
B.S., 1940, D.D.S., 1950, M.S., 1951 (Iowa)

VIRGINIA MARGARET NELSON (1960), *Assistant Professor of Public Health Nursing*
B.A., 1946 (Stanford); B.S., 1949 (Minnesota); M.P.H., 1955 (Pittsburgh)

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47. Absent on leave, 1961-1962.
48. Absent on leave, 1961-1962.
49. Absent on leave, 1961-1962.

KENNETH NESS (1941), *Resident Artist and Professor of Art*
Diploma, 1932 (The Art Institute of Chicago)

WILLIAM S. NEWMAN (1945), *Professor of Music*
B.S., 1933, M.A., 1935, Ph.D., 1939 (Western Reserve)

JAMES FREDERICK NEWSOME (1956), *Assistant Professor of Surgery*
A.B., 1944 (North Carolina); M.D., 1949 (Vanderbilt)

HARRIETTE ZIMMERMAN NIBBELINK (1961), *Instructor in Nursing (Community Nursing)*
B.S.N., 1960 (North Carolina); R.N.

GEORGE EDWARD NICHOLSON, JR. (1948), *Professor of Statistics and Research Professor in the Institute for Research in Social Science*
A.B., 1940, A.M., 1941, Ph.D., 1948 (North Carolina)

ANNE WHITLOCK NIELSEN (1960), *Research Associate in Botany*
B.S., 1957, M.A., 1960 (North Carolina)

[50]EDWARD WILLIAM NOLAND (1949), *Kenan Professor of Sociology (1961) and Research Professor in the Institute for Research in Social Science*
A.B., 1930, A.M., 1936 (West Virginia); Ph.D., 1944 (Cornell)

JOHN WILLIAM ROY NORTON (1938-46; 1948), *Visiting Associate Professor of Public Health Administration*
A.B., 1920 (Duke); M.D., 1928 (Vanderbilt); M.P.H., 1936 (Harvard School of Public Health)

KATHERINE BUCKLEY NUCKOLLS (1960), *Instructor in Nursing (Maternal-Child Health Nursing)*
A.B., 1938 (Michigan); M.N., 1941 (Yale); R.N.

RACHEL LEE NUNLEY (1957), *Assistant Professor of Physical Therapy*
B.A., 1946 (Marshall); M.A., 1955 (Duke)

SYLVANUS WILLIAM NYE (1959), *Instructor in Pathology and Clinical Bacteriology*
A.B., 1952 (Hamilton); M.D., 1957 (Rochester)

PAUL ARNOLD OBRIST (1960), *Assistant Professor of Pyschology in the Departments of Psychology and Psychiatry*
B.S., 1953 (Cornell); Ph.D., 1958 (Rochester)

ELMER ROSENTHAL OETTINGER, JR. (1957), *Assistant Director of the Institute of Government*
B.A., 1934, LL.B., 1939, M.A., 1952 (North Carolina)

[51]FAITH NEWBURY OGDEN (1959), *Instructor in Child Psychiatry*
A.B., 1937 (Radcliffe); M.D., 1942 (Columbia)

DANIEL ALEXANDER OKUN (1952), *Professor of Sanitary Engineering*
B.S.C.E., 1937 (Cooper Union Institute of Technology); M.S., 1938 (California Institute of Technology); Sc.D., 1948 (Harvard)

MARY WILHELMINA OLIVER (1952), *Associate Professor of Law and Law Librarian*
A.B., 1940 (Western Maryland College); B.S. in L.S., 1943 (Drexel Institute of Technology); LL.B., 1951 (North Carolina)

WILLIAM ANDERSON OLSEN (1923), *Professor of English*
A.B., 1923 (Cornell); A.M., 1928 (North Carolina)

JERROLD ORNE (1957), *University Librarian and Chairman of the Library Division*
B.A., 1932, M.A., 1933 (Minnesota); Cert., 1935 (University of Paris, Sorbonne); Ph.D., 1939 (Chicago); B.S. in L.S., 1940 (Minnesota)

JEFFERSON CRAWFORD PAINTER (1961), *Research Associate in Pathology*
B.S., 1942 (Wofford College)

EVERETT D. PALMATIER (1949), *Kenan Professor of Physics (1959) and Associate Director of the Institute of Natural Science*
B.Sc., 1938 (Manitoba); Ph.D., 1951 (Cornell)

JEFFRESS GARY PALMER (1952), *Associate Professor of Medicine*
B.S., 1942, M.D., 1944 (Emory)

OLGA MARIA PALOTAI (1961), *Librarian, Institute of Government*
LL.B., 1951 (University of Budapest, Hungary)

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50. Absent on leave, 1961-1962.
51. Resigned October 31, 1961.

LEONARD PALUMBO, JR. (1952), *Associate Professor of Obstetrics and Gynecology*
M.D., 1944 (Duke)

OSCAR HALL PARIS, JR. (1960), *Assistant Professor of Zoology*
B.A., 1953, M.A., 1956 (North Carolina); Ph.D., 1960 (California)

FRANCES CHERRY C. PARKER (1957-59; 1960), *Instructor in Nursing (Outpatient Department)*
Diploma in Nursing, 1941 (St. Thomas School of Nursing, Nashville); R.N.; B.S.P.H.N., 1957 (North Carolina)

JOHN ALBERT PARKER (1946), *Professor of Planning and Research Professor in the Institute for Research in Social Science*
S.B., 1931, M.Arch., 1933, M.C.P., 1946 (Massachusetts Institute of Technology)

JOHN WILLIAM PARKER (1934), *Professor of Dramatic Art, Associate Director and Business Manager of The Carolina Playmakers*
A.B. in Educ., 1930, A.M., 1935 (North Carolina)

MABEL MARIE PARKER (1958), *Assistant Professor of Physical Therapy*
B.S., 1939 (Western Michigan); M.A., 1940 (Michigan)

SAMUEL L. PARKER, JR. (1956), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1938 (North Carolina); M.D., 1942 (George Washington)

WILLIAM NELSON PARKER (1956), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
B.A., 1939, M.A., 1941, Ph.D., 1951 (Harvard)

RALPH CLINTON PATRICK, JR. (1958), *Associate Professor of Epidemiology*
A.B., 1946 (North Carolina); A.M., 1952, Ph.D., 1954 (Harvard)

CARL NORRIS PATTERSON (1953), *Clinical Consultant in Surgery (Otolaryngology)*
B.S., 1941 (Franklin Marshall); M.D., 1944 (Maryland)

DANIEL WATKINS PATTERSON (1957), *Assistant Professor of English*
A.B., 1949 (Duke); M.A., 1955, Ph.D., 1959 (North Carolina)

FRED GEER PATTERSON (1941), *Clinical Instructor in Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Pennsylvania)

HUBERT CLIFTON PATTERSON, JR. (1950), *Assistant Professor of Surgery*
A.B., 1936 (Duke); M.D., 1937 (Harvard)

THOMAS MCEVOY PATTERSON (1950), *Associate Professor of Dramatic Art and Staff Director of The Carolina Playmakers*
A.B., 1934, A.M., 1936 (Texas)

JAMES WELCH PATTON (1948), *Professor of History, Chief, Manuscripts Department, and Director of the Southern Historical Collection, University Library*
A.B., 1924 (Vanderbilt); A.M., 1925, Ph.D., 1929 (North Carolina)

CLARENCE WAYNE PATTY (1960), *Assistant Professor of Mathematics*
B.S., 1954, M.A., 1958, Ph.D., 1960 (Georgia)

ERLE EWART PEACOCK (1920), *Professor of Accounting*
A.B., 1914 (Georgia); M.B.A., 1916 (Harvard); C.P.A. (State of North Carolina)

ERLE EWART PEACOCK, JR. (1956), *Assistant Professor of Surgery*
M.D., 1949 (Harvard)

WILLIAM HENRY PEACOCK (1946), *Professor of Physical Education*
A.B., 1932 (Maryville College); A.M., 1940, Ph.D., 1945 (North Carolina)

RICHARD LEHMER PEARSE (1940), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1927 (Duke); M.D., 1931 (Harvard)

NICHOLAS PEDIADITAKIS (1961), *Clinical Instructor in Psychiatry*
M.D., 1954 (University of Salonica, Greece)

CARL HAMILTON PEGG (1930), *Alumni Distinguished Professor of History (1961)*
A.B. in Educ., 1927, A.M., 1927, Ph.D., 1930 (North Carolina)

FRANCIS JOHN PEIRCE (1961), *Lecturer in Social Work*
B.A., 1951, M.S.W., 1953 (Minnesota)

[52]GEORGE DIAL PENICK (1949), *Associate Professor of Pathology*
S.B., 1944 (North Carolina); M.D., 1946 (Harvard)

52. Effective February 1, 1962.

RALPH PENNIALL (1958), *Assistant Professor of Biochemistry and Nutrition*
B.A., 1947 (Knox); M.S., 1950, Ph.D., 1953 (Iowa)

JESSIE MAE PEPPER (1960), *Instructor in Nursing (Community Nursing)*
Diploma in Nursing, 1957 (Greenville General Hospital, Greenville); R.N.; B.S.N., 1960 (North Carolina)

MARIO PÉREZ-REYES (1961), *Research Associate in Psychiatry*
B.S., 1945 (Colegio Frances Morelos); M.D., 1952 (National University of Mexico)

JOSEPH H. PERLMUTT (1953), *Associate Professor of Physiology*
B.S., 1939 (College of Charleston); A.M., 1942 (North Carolina); Ph.D., 1950 (Princeton)

ARNOLD PERRY (1948), *Professor of Education and Dean of the School of Education*
A.B., 1926, Ed.M., 1933 (Duke); Ed.D., 1943 (Columbia)

SOLOMON PAUL PERRY (1954), *Clinical Associate Professor of Radiology*
A.B., 1921 (Davis and Elkins College); M.D., 1926 (Chicago)

WILLIAM DECATUR PERRY (1937), *Professor of Education and Director of the University Testing Service*
A.B. in Educ., 1929 (North Carolina); M.A., 1934 (Columbia); Ed.D., 1937 (Teachers College, Columbia)

ANN DEHUFF PETERS (1953), *Associate Professor of Maternal and Child Health*
B.A., 1936 (New Mexico); B.S., 1937, M.S.S.W., 1938 (Simmons College); M.D., 1946 (Washington University)

HOWARD AUGUST PETERS (1961), *Instructor in Sanitary Science*
B.A., 1951 (Omaha); M.P.H., 1958 (North Carolina)

RICHARD MORSE PETERS (1952), *Associate Professor of Surgery*
B.S., 1943, M.D., 1945 (Yale)

BILLY JAMES PETTIS (1957), *Professor of Mathematics*
B.A., 1932 (Wofford); M.A., 1933 (North Carolina); Ph.D., 1937 (Virginia)

MYRON ALVIN PEYTON (1961), *Professor of Spanish*
A.B., 1930, M.A., 1931 (Kansas); Ph.D., 1942 (Northwestern)

RALPH WILLIAM PFOUTS (1952), *Professor of Economics, Director of Graduate Studies, and Research Affiliate in the Institute for Research in Social Science*
A.B., 1942, A.M., 1947 (Kansas); Ph.D., 1952 (North Carolina)

PETER GEORGE PHIALAS (1953), *Associate Professor of English*
B.A., 1938 (Northeast Missouri State Teachers College); M.A., 1939 (Missouri); Ph.D., 1948 (Yale)

CLARENCE EDWARD PHILBROOK (1947), *Professor of Economics*
A.B., 1936, Ph.D., 1949 (Chicago)

CHARLES A. SPEAS PHILLIPS (1957), *Clinical Assistant Professor of Anatomy*
B.S., 1942 (North Carolina); B.M., 1945, M.D., 1946 (Northwestern)

[53]GUY BERRYMAN PHILLIPS (1936), *Professor of Education, Emeritus*
A.B., 1913 (North Carolina); M.A., 1942 (Columbia); D.Litt. (High Point College)

JAMES DICKSON PHILLIPS, JR. (1960), *Associate Professor of Law*
B.S., 1943 (Davidson); J.D., 1948 (North Carolina)

CLAUDE PIANTADOSI (1956), *Associate Professor of Pharamaceutical Chemistry*
B.S., 1949 (Brooklyn College); M.S., 1952 (Columbia); Ph.D., 1956 (North Carolina)

JERRY CLINE PICKEREL (1961), *Instructor in Pathology*
B. Music, 1945, M. Music, 1947 (Michigan); B.S., 1954 (McNeese State College); M.D., 1958 (Tulane)

EDWIN LEE PIERCE (1959), *Clinical Instructor in Medicine*
B.S., 1949 (Wake Forest); M.D., 1952 (Bowman Gray)

WILLIAM WHATLEY PIERSON (1915), *Dean of the Graduate School, Emeritus (1957); Kenan Professor of History and Political Science (1959)*
A.B., 1910, A.M., 1911 (Alabama); M.A., 1912, Ph.D., 1916 (Columbia); Litt.D. (Boston); LL.D. (Washington and Lee)

PAUL JAN PINCKNEY (1961), *Instructor in Modern Civilization*
B.S., 1954 (Davidson); M.A., 1959 (Vanderbilt)

[54]IRENE PATRICIA PITONAK (1958), *Instructor in Nursing*
Diploma in Nursing, 1947 (Jersey City School of Nursing); R.N.; B.S., 1955 (Seton Hall); M.A., 1958 (New York)

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53. Retired July 1, 1961.
54. Resigned August 31, 1961.

MORTON ELI PIZER (1955), *Clinical Instructor in Pediatrics*
M.D., 1947 (Louisville)

KENNETH ARTHUR PODGER (1955), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1937, M.D., 1941 (Duke)

[55]DANIEL HUBBARD POLLITT (1957), *Professor of Law*
A.B., 1943 (Wesleyan); LL.B., 1949 (Cornell)

WILLIAM SPROTT POLLITZER (1957), *Assistant Professor of Anatomy*
A.B., 1944, M.A., 1947 (Emory); Ph.D., 1957 (Columbia)

HALLOWELL POPE (1961), *Instructor in Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1951, M.A., 1957 (Chicago)

HUGH J. PORTER (1955), *Instructor in the Institute of Fisheries Research*
B.S., 1950 (Millersville Teachers College); M.Sc., 1956 (Delaware)

GERALD S. POSNER (1955), *Research Affiliate in the Institute of Fisheries Research*
B.S., 1949 (College of the City of New York); M.S., 1951 (Miami University); Ph.D., 1956 (Yale)

CLYDE RANDOLPH POTTER (1961), *Instructor in Surgery*
B.S., 1950 (Wake Forest); M.D., 1954 (Duke)

RICHARD FREDERICK POTTHOFF (1961), *Visiting Research Associate in Statistics*
B.A., 1953 (Swarthmore); Ph.D., 1959 (North Carolina)

EVANGELINE SOUTSOS POULOS (1953), *Associate Professor of Nursing (Psychiatric Nursing)*
Diploma in Nursing, 1947 (Boston City Hospital); R.N.; B.S., 1952, M.S., 1953 (Boston)

WILLIAM CARLYLE POWELL (1957), *Clinical Instructor in Pediatrics*
A.B., 1948 (North Carolina); M.D., 1952 (Bowman Gray)

WILLIAM STEVENS POWELL (1951), *Librarian, North Carolina Collection, University Library*
B.A., 1940, M.A., 1947, B.S. in L.S., 1947 (North Carolina)

ARTHUR JERGEN PRANGE, JR. (1957), *Assistant Professor of Psychiatry*
B.S., 1947, M.D., 1950 (Michigan)

CARLETON ESTEY PRESTON (1927), *Professor of Education, Emeritus (1945)*
A.B., 1899, A.M., 1900, Ph.D., 1902 (Harvard)

RUTH A. PRESTON (1960), *Research Associate in Preventive Medicine*
B.S., 1946 (Cornell); B.S. in Nursing, 1949 (Johns Hopkins); M.S., 1957 (Syracuse)

DANIEL O'HAVER PRICE (1947), *Professor of Sociology and Director of the Institute for Research in Social Science*
B.S., 1939 (Florida Southern); A.M., 1942, Ph.D., 1948 (North Carolina)

RUTH I. PRICE (1949), *Assistant Professor of Physical Education*
B.S., 1926 (Columbia); M.S., 1936 (Southern California)

ARDELL MAE PROCTOR (1957), *Instructor in Medical Technology (Bacteriology)*
B.S., 1945, M.S., 1950 (Minnesota)

JAMES THORNTON PROCTOR (1954), *Associate Professor of Psychiatry*
A.B., 1943, M.D., 1946 (Kansas)

JAMES WARREN PROTHRO (1960), *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
A.B., 1943 (North Texas State); M.A., 1948 (Louisiana State); M.A., 1949, Ph.D., 1952 (Princeton)

DEWEY FRANKLIN PRUETT (1960), *Cataloguer, Law Library*
B.S., 1945 (Abilene Christian College); M.A., 1957 (Louisville)

LILIAN PIBERNIK PRUETT (1960), *Instructor in Music*
A.B., 1952 (Vassar); A.M., 1957, Ph.D., 1960 (North Carolina)

JAMES WORRELL PRUETT (1961), *Music Librarian*
A.B., 1955, M.A., 1957 (North Carolina)

WALTER WAGNER RABB (1946), *Associate Professor of Physical Education, Head Baseball Coach, and Assistant Director of Athletics*
B.S., 1937 (North Carolina State); A.M. in Educ., 1941 (North Carolina)

55. Absent on leave, 1961-1962.

GORDON ELLIS RADER (1957), *Assistant Professor of Psychology in Departments of Psychiatry and Psychology*
B.S., 1950 (Washington); M.S., 1952, Ph.D., 1956 (Yale)

ALBERT ERNEST RADFORD (1946), *Professor of Botany*
B.S., 1939 (Furman); Ph.D., 1948 (North Carolina)

ROBERT BARCLAY RAGLAND (1961), *Instructor in Child Psychiatry*
B.S., 1941 (Florida); M.D., 1945 (Duke)

IRENE SMART RAINS (1944), *Lecturer in Dramatic Art and Costume Director of The Carolina Playmakers*

MARY WALKER RANDOLPH (1956), *Professor of Nursing*
Diploma in Nursing, 1924 (Los Angeles County General Hospital); R.N.; B.S.N.Ed., 1932 (Virginia); M.A., 1940 (Teachers College, Columbia)

RICHARD BEVERLY RANEY (1944), *Professor of Surgery (Orthopedics)*
A.B., 1926 (North Carolina); M.D., 1930 (Harvard)

EDGAR RALPH RANKIN (1913), *Bureau of School Relations, Extension Division*
A.B., 1913, A.M., 1914 (North Carolina)

MURPHEY DALE RANSON (1925), *Instructor in Physical Education and Head Track and Cross Country Coach*
S.B.Comm., 1924 (North Carolina)

EDWIN ALBERT RASBERRY, JR. (1954), *Clinical Associate Professor of Medicine*
A.B., 1937 (North Carolina); M.D., 1941 (Pennsylvania)

SAMUEL FITSIMONS RAVENEL (1954), *Clinical Professor of Pediatrics*
A.B., 1918 (North Carolina); M.D., 1923 (Johns Hopkins)

WILLIAM FRANCIS REAGAN (1961), *Instructor in French*
A.B., 1948 (Emory); M.A., 1950 (Wisconsin)

[56]KENNETH JOSEPH RECKFORD (1960), *Assistant Professor of Classics*
A.B., 1954 (Harvard College); Ph.D., 1957 (Harvard)

THEODORE ROOSEVELT REGISTER, JR. (1959), *Airman First Class, United States Air Force; Instructor in Air Science*

JESSIE REHDER (1947), *Lecturer in English*
A.B., 1929 (Randolph-Macon); M.A., 1931 (Columbia)

HERBERT WILLIAM REICHERT (1947), *Professor of German*
B.A., 1938, M.A., 1940 (Columbia); Ph.D., 1942 (Illinois)

[57]CHARLES NORWOOD REILLEY (1952), *Professor of Chemistry*
B.S. in Chem., 1947 (North Carolina); Ph.D., 1952 (Princeton)

ISAAC NEWTON REYNOLDS (1951), *Associate Professor of Accounting and Adviser in the General College*
B.S., 1948 (East Carolina College); S.M., 1951, Ph.D., 1957 (North Carolina)

TOM REZZUTO, JR. (1956), *Assistant Professor of Dramatic Art and Technical Director of The Carolina Playmakers*
A.B., 1952, M.A., 1954 (North Carolina)

DWIGHT CARROLL RHYNE (1951), *Instructor in Political Science in Extension Teaching and Associate Director of the Extension Division*
A.B., 1949, A.M., 1950 (North Carolina)

OSCAR KNEFLER RICE (1936), *Kenan Professor of Chemistry (1959)*
B.S., 1924, Ph.D., 1926 (California)

REED PORTER RICE (1961), *Instructor in Radiology*
B.A., 1955 (DePauw); M.D., 1955 (Indiana); M.S., 1961 (Minnesota)

RICHARD EDGEWORTH RICHARDSON (1952), *Associate Professor of Oral Diagnosis and Treatment Planning*
D.D.S., 1937 (Maryland)

WILLIAM PERRY RICHARDSON (1936), *Professor of Preventive Medicine and Assistant Dean of the School of Medicine for Continuation Education*
A.B., 1926 (Wake Forest); M.D., 1928 (Medical College of Virginia); M.P.H., 1933 (Johns Hopkins)

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56. Absent on leave, 1961-1962.
57. Absent on leave, fall semester, 1961-1962.

HERMAN AUSTON RIERSON (1961), *Instructor in Physiology*
A.B., 1953 (Guilford College); M.A., 1956 (Duke)

LYMAN ALONZO RIPPERTON (1958), *Assistant Professor of Sanitary Science*
B.A., 1942, B.S., 1946, Ph.D., 1954 (Texas)

WILSON CRUNK RIPPY, JR. (1958), *Clinical Instructor in Child Psychiatry*
B.S., 1949, M.D., 1952 (Emory)

HAROLD ROSS ROBERTS (1961), *Research Associate in Pathology*
B.S., 1952, M.D., 1955 (North Carolina)

LOUIS C. ROBERTS (1953), *Clinical Instructor in Surgery*
B.S., 1930 (Davidson); M.D., 1934 (Duke)

DAVID A. ROBERTSON, JR. (1961), *Visiting Assistant Professor of Sanitary Engineering*
B.S.C.E., 1947 (Virginia Polytechnic Institute); M.S.S.E., 1950 (Harvard)

HALBERT BENEFIEL ROBINSON (1959), *Associate Professor of Psychology, Clinical Assistant Professor of Psychology in the Department of Psychiatry, and Research Associate in the Institute for Research in Social Science*
A.B., 1951, M.A., 1954, Ph.D., 1957 (Stanford)

CHARLES BASKERVILL ROBSON (1925), *Kenan Professor of Political Science (1961)*
A.B., 1919 (Davidson); A.M., 1924 (Princeton); Ph.D., 1930 (North Carolina)

NATHANIEL FULFORD RODMAN, JR. (1958), *Assistant Professor of Pathology*
A.B., 1947 (Princeton); M.D., 1951 (Pennsylvania)

ROBERT SAMUEL ROGERS (1961), *Visiting Professor of Classics*
A.B., 1920 (Pennsylvania); M.A., 1921, Ph.D., 1923 (Princeton)

MICHAEL Z. RONMAN (1936), *Instructor in Physical Education*
B.S., 1935, Ed.M., 1938 (Pennsylvania State)

IRA WOODALL ROSE, JR. (1959), *Clinical Instructor in Surgery*
B.S., 1941 (Davidson); M.D., 1943 (Washington)

ROBERT ALEXANDER ROSS (1934), *Professor of Obstetrics and Gynecology*
S.B., 1920 (North Carolina); M.D., 1922 (Pennsylvania)

NEILL ALBERT ROSSER (1959), *Associate Professor of Education*
A.B., 1939 (Maryville College); Ed.M., 1947 (Harvard); Ed.D., 1952 (Denver)

DOUGLAS ATHON ROSSMAN (1961), *Instructor in Zoology*
B.A., 1958 (Southern Illinois); Ph.D., 1961 (Florida)

SAMARENDA NATH ROY (1950), *Professor of Statistics*
B.Sc., 1928, M.Sc., 1931 (Calcutta)

CHAUNCEY LAKE ROYSTER (1952), *Clinical Associate Professor of Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Cornell)

THOMAS SAMPSON ROYSTER, JR. (1953), *Clinical Instructor in Surgery*
A.B., 1940 (North Carolina); M.D., 1943 (Pennsylvania)

MAURICE HARVEY RUBIN (1955), *Clinical Instructor in Surgery (Ophthalmology)*
M.D., 1948 (Long Island College of Medicine)

ROBERT ARTHUR RUPEN (1958), *Associate Professor of Political Science and Research Associate in the Institute for Research in Social Science*
A.B., 1948 (Williams); M.A., 1949 (Fletcher School of Law and Diplomacy); Ph.D., 1954 (Washington)

ANN LESLIE RUSSELL (1959), *Assistant Professor of Nursing (Maternal-Child Health Nursing)*
A.B., 1949 (Shorter College); B.S., 1952 (Emory); R.N.; M.A.N.Ed., 1959 (Chicago)

CHARLES PHILLIPS RUSSELL (1931), *Professor of Journalism, Emeritus (1956)*
A.B., 1904 (North Carolina)

HARRY KITSUN RUSSELL (1929), *Professor of English*
A.B., 1923 (Davidson); A.M., 1928, Ph.D., 1931 (North Carolina)

FRANK WINKLER RYAN, JR. (1957), *Associate Professor of Modern Civilization*
B.S., 1940 (College of Charleston); M.A., 1947, Ph.D., 1956 (North Carolina)

WILL CARSON RYAN (1940), *Kenan Professor of Education (1940), Emeritus (1956)*
A.B., 1907 (Harvard); Ph.D., Ed.D., 1918, LL.D., (George Washington)

ALTON GUY SADLER (1946), *Lecturer in Accounting*
A.B., 1930 (Duke); M.S., 1937 (North Carolina); C.P.A. (State of Georgia)

ROBERT HENRY SAGER (1954), *Associate Professor of Periodontology and Oral Pathology*
D.D.S., 1949 (Northwestern); Ph.D., 1961 (Chicago)

SYDNEY GORDON SALUS (1960), *Visiting Lecturer in Psychiatry*
A.B., 1943 (George Washington); M.D., 1950 (Hahnemann)

[57a]JOHN LASSITER SANDERS (1956), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1950, J.D., 1954 (North Carolina)

WILEY BRITTON SANDERS (1923), *Professor of Sociology*
A.B., 1919, A.M., 1920 (Emory); A.M., 1921 (North Carolina); Ph.D., 1929 (Chicago)

MYRON GUY SANDIFER, JR. (1955), *Clinical Assistant Professor of Psychiatry*
B.S., 1943 (Davidson); M.D., 1947 (Harvard)

OSCAR LEMAY SAPP III (1960), *Instructor in Medicine*
M.D., 1947 (Bowman Gray)

[58]AHMED EBADA SARHAN (1955), *Visiting Research Professor of Biostatistics*
B.Sc., 1943 (Cairo); M.Sc., 1952 (Liverpool); M.S.Hy., 1953 (Harvard); Ph.D., 1955 (North Carolina)

JASON LEWIS SAUNDERS (1954), *Associate Professor of Philosophy*
A.B., 1947 (Tufts); A.M., 1949, Ph.D., 1952 (Columbia)

HERMAN MAX SCHIEBEL (1942), *Clinical Assistant Professor of Surgery*
A.B., 1929, M.D., 1933 (Johns Hopkins)

JAN PHILIP SCHINHAN (1935), *Professor of Music, Emeritus (1958)*
A.B., 1931, M.A., 1933 (California); Ph.D., 1937 (Vienna)

KARL OTTO SCHMID (1961), *Lecturer in Planning*
Diploma in Architecture, 1957 (Federal Institute of Technology, Zurich, Switzerland); Diploma in City and Regional Planning, 1958 (University of Toronto); M.Arch. in Urban Design, 1961 (Harvard)

WILLIAM GENE SCHNEIDER (1959), *Assistant Professor of Orthodontics*
D.D.S., 1954 (Iowa); M.Sc.O., 1959 (North Carolina)

JOHN MARTIN SCHNORRENBERG (1959), *Assistant Professor of Art*
A.B., 1952, M.A., 1953 (North Carolina); M.F.A., 1957 (Princeton)

JOHN SCHOPLER (1958), *Assistant Professor of Psychology*
B.A., 1952 (Rochester); M.A., 1953 (New Mexico); Ph.D., 1957 (Colorado)

EVERETT HOYLE SCHULTZ, JR. (1961), *Associate Professor of Radiology*
M.D., 1952 (Bowman Gray)

HELMUT ERNST FRIEDRICH SCHURIG (1960), *Research Associate in Chemistry*
Diplomphysiker, 1956, Dr. rer.nat., 1959 (University of Göttingen, Germany)

[59]SEYMOUR SCHUSTER (1961), *Visiting Associate Professor of Mathematics*
B.A., 1947 (Pennsylvania State); A.M., 1948 (Columbia); Ph.D., 1953 (Pennsylvania State; University of Toronto)

JOHN HARRIS SCHWAB (1953), *Associate Professor of Bacteriology*
B.A., 1949, M.S., 1950, Ph.D., 1953 (Minnesota)

[60]GUSTAV THEDOR SCHWENNING (1926), *Professor of Business Administration, Emeritus*
B.H., 1920 (Springfield); M.A., 1921, Ph.D., 1925 (Clark)

FRANK J. SCHWENTKER (1954), *Julian Price Lecturer in Life Insurance (1953)*
A.B., 1928 (Harvard); C.L.U., 1938 (American College of Life Underwriters); C.P.C.U., 1956 (American Institute of Property and Liability Underwriters)

ANDREW MACKAY SCOTT (1958), *Associate Professor of Political Science*
B.A., 1946 (Dartmouth); M.A., M.P.A., 1949, Ph.D., 1950 (Harvard)

ANNIE VELLNA SCOTT (1954), *Clinical Professor of Pediatrics*
B.S., 1914 (Woman's College, North Carolina); M.D., 1918 (Woman's Medical College of Pennsylvania)

ROBERT NEILL SCOTT (1957), *Associate Professor of Education*
B.S., 1948 (Western Carolina College); M.A., 1950 (Peabody); Ed.D., 1956 (Tennessee)

57a. Absent on leave, October 1, 1961, to August 31, 1962.
58. Resigned August 31, 1961.
59. Fall semester, 1961-1962.
60. Retired August 1, 1961.

ROSS E. SCROGGS, JR. (1949), *Assistant Professor of Radio, Television, and Motion Pictures and Associate Director of the Communication Center*
B.S., 1942 (North Carolina)

RUTH ELIZABETH SEARLES (1959), *Assistant Professor of Sociology and Assistant Director of the Institute for Research in Social Science*
A.B., 1951 (Oberlin); M.A., 1955, Ph.D., 1961 (Michigan)

PAUL WALLACE SEAVEY (1958), *Clinical Instructor in Medicine*
A.B., 1949, M.D., 1953 (Emory)

STUART WILSON SECHRIEST (1946), *Associate Professor of Journalism and Adviser in the General College*
A.B., 1935 (North Carolina)

MARION SEILER (1960), *Research Associate in Botany*
A.B., 1937 (Illinois)

[61]KARL-LUDWIG SELIG (1958), *Associate Professor of Spanish and Italian*
A.B., 1946, M.A., 1947 (Ohio State); Ph.D., 1954 (Texas)

FRED THEODOR SEMENIUK (1947), *Professor of Pharmaceutical Chemistry*
B.Sc., 1939 (Alberta); Ph.D., 1947 (Purdue)

JOHN ERWIN SEMONCHE (1961), *Instructor in Modern Civilization*
A.B., 1954 (Brown); M.A., 1955 (Northwestern)

ROBERT JOSEPH SENIOR (1959), *Clinical Instructor in Pediatrics*
B.S., 1949 (Franklin and Marshall College); M.D., 1955 (Jefferson Medical College)

WILLIAM JEFFRESS SENTER (1952), *Clinical Assistant Professor of Medicine*
B.S., 1938 (Wake Forest); M.D., 1942 (Maryland)

JOHN TURNER SESSIONS, JR. (1952), *Associate Professor of Medicine*
B.S., 1943, M.D., 1945 (Emory)

HANSON DOUGLAS SESSOMS (1954), *Assistant Professor of Sociology*
A.B., 1953 (North Carolina); M.S., 1954 (Illinois); Ph.D., 1959 (New York University)

JAMES NORWOOD SETTLE (1959), *Instructor in Classics*
A.B., 1950 (Wake Forest)

[62]HARLEY CECIL SHANDS (1953), *Associate Professor of Psychiatry*
B.S., 1936, M.D., 1939 (Tulane); M.S. (Med.), 1945 (Minnesota)

ROBERT JACK SHANKLE (1951), *Professor of Operative Dentistry*
D.D.S., 1948 (Emory)

DAVID GORDON SHARP (1957), *Professor of Biophysics*
B.S., 1932 (Rutgers); M.A., 1937, Ph.D., 1939 (Duke)

LAWRENCE ALBRIGHT SHARPE (1953), *Associate Professor of Spanish and Portuguese*
A.B., 1940, Ph.D., 1956 (North Carolina)

ROBERT BOIES SHARPE (1931), *Professor of English*
A.B., 1918 (Wesleyan); M.A., 1923 (Wisconsin); Ph.D., 1928 (Yale)

MARGARET ANN SHAW (1961), *Assistant Professor of Pharmacy*
B.S., 1955 (Kentucky); Ph.D., 1961 (Florida)

CHARLES ISAAC SHEAFFER (1961), *Instructor in Pediatrics*
B.S., 1950 (Butler); M.A., 1954, M.D., 1958 (Virginia)

PETER STORMS SHEARER (1961), *Lieutenant Commander, United States Navy; Assistant Professor of Naval Science*
B.A., 1951 (Rochester)

PAUL EDMONDSON SHEARIN (1936), *Professor of Physics*
A.B. in Educ., 1929, A.M., 1930 (North Carolina); Ph.D., 1934 (Ohio State)

FREDERICK CARLYLE SHEPARD (1946), *Adviser to Veterans and Adviser in the General College*
A.B., 1921, A.M., 1926, Ph.D., 1938 (North Carolina)

GEORGE EDWARD SHEPARD (1929), *Professor of Physical Education and Adviser in the General College*
S.B., 1929 (North Carolina); M.A., 1940, Ed.D., 1948 (Columbia)

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61. Resigned August 31, 1961.
62. Resigned July 31, 1961.

LEMUEL CORNICK SHEPHERD III (1959), *Major, United States Marine Corps; Assistant Professor of Naval Science*
B.E., 1946 (Yale)

62a LUCY KOESY SHINGLETON (1960), *Instructor in Nursing (Maternal-Child Health Nursing)*
Diploma in Nursing, 1954 (Duke); R.N.; B.S.N.Ed., 1956 (Duke)

CLAUDE C. SHOTTS (1947), *Secretary of the YMCA*
B.S. in E.E., 1922 (Alabama); B.D., 1925 (Yale)

EMIR HAMVASY SHUFORD, JR. (1957), *Assistant Professor of Psychology*
B.A., 1951, M.A., 1953 (Arkansas); A.M., 1955, Ph.D., 1955 (Illinois)

WALTER ALLEN SIKES (1954), *Clinical Assistant Professor of Psychiatry*
B.S., 1945 (Georgia); M.D., 1946 (Medical College of Georgia)

MARVIN SILVER (1959), *Visiting Assistant Professor of Physics*
B.E.E., 1945 (Rensselaer Polytechnic Institute); M.S., 1951, Ph.D., 1959 (New York University)

JOHN LEWIS SIMMONS (1957), *Assistant Professor of Surgery*
M.D., 1951 (Washington)

GEORGE L. SIMPSON, JR. (1950), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1941, A.M., 1944, Ph.D., 1951 (North Carolina)

RICHARD LEE SIMPSON (1958), *Associate Professor of Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1950 (North Carolina); M.A., 1952 (Cornell); Ph.D., 1956 (North Carolina)

LOUIS GORDON SINCLAIR (1961), *Clinical Assistant Professor of Surgery*
B.A., 1929, B.S., 1931 (Wake Forest); M.D., 1933 (Pennsylvania)

WILLIAM VANCE SINGLETARY (1952), *Clinical Assistant Professor of Medicine*
A.B., 1940 (North Carolina); M.D., 1943 (Duke)

MARY CLYDE SINGLETON (1961), *Assistant Professor of Physical Therapy*
B.S., 1932 (Woman's College, North Carolina); M.A., 1960 (Duke)

JOSEPH CARLYLE SITTERSON (1935), *Kenan Professor of History (1961), Dean of the College of Arts and Sciences, and Dean of the General College*
A.B., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)

DONALD EDMOND SKAKLE, SR. (1958), *Instructor in Physical Education and Head Tennis Coach*
A.B., 1950, M.Ed., 1960 (North Carolina)

WILLIAM G. SLATTERY (1957), *Lecturer in Distributive Education*
B.S., 1932 (State Teachers College, Clarion, Pa.); M.S., 1951 (Woman's College, North Carolina)

LAWRENCE MYER SLIFKIN (1955), *Associate Professor of Physics*
A.B., 1947 (New York University); M.A., 1949, Ph.D., 1950 (Princeton)

JOSEPH CURTIS SLOANE (1959), *Professor of Art and Director of the Ackland Memorial Art Center*
B.A., 1931, M.F.A., 1934, Ph.D., 1949 (Princeton)

EARL ANDERSON SLOCUM (1933), *Professor of Music*
B.Mus., 1931, M.M., 1936 (Michigan); Mus.D. (Albion)

TROY BUNYON SLUDER, JR. (1955), *Assistant Professor of Operative Dentistry*
D.D.S., 1955 (North Carolina); M.S., 1961 (Michigan)

EUZELIA C. SMART (1959), *Assistant Professor of Social Service (Hospital Administration)*
A.B., 1930 (Meredith); M.S., 1950 (New York School of Social Work, Columbia University)

ALTON LACY SMITH (1960), *Clinical Instructor in Periodontology and Oral Pathology*
B.A., 1943 (North Carolina); D.D.S., 1949 (Emory)

DAVID NATHAN SMITH (1961), *Assistant Director of the Institute of Government*
A.B., 1958, LL.B., 1961 (Harvard)

DEAN EDWARDS SMITH (1958), *Head Basketball Coach*
B.S., 1953 (Kansas)

62a. Resigned December 30, 1961.

GEORGE ARTHUR SMITH (1961), *Lieutenant (junior grade), United States Naval Reserve; Assistant Professor of Naval Science*
B.F.A., 1959 (Illinois)

HARVEY L. SMITH (1952), *Professor of Sociology in Departments of Sociology and Anthropology and Psychiatry, Research Professor in the Institute for Research in Social Science, and Director of the Social Research Section of the Division of Health Affairs*
B.A., 1941, M.A., 1947, Ph.D., 1949 (Chicago)

JULIA DUPUY SMITH (1954), *Associate Professor of Nursing (Public Health Nursing)*
A.B., 1923 (Hollins); Diploma in Nursing, 1928 (Hospital of the University of Pennsylvania); R.N.; M.A., 1937 (Columbia)

WALTER LAWS SMITH (1954), *Associate Professor of Statistics*
B.A., 1947, M.A., 1951, Ph.D., 1953 (Cambridge)

WILLIAM GORDON SMITH, JR. (1961), *Instructor in Surgery*
A.B., 1953 (Duke); M.D., 1957 (North Carolina)

RICHARD ANDREW SMYTH (1961), *Assistant Professor of Philosophy*
B.A., 1955 (Yale); M.A., 1959, Ph.D., 1961 (Indiana)

CLARENCE LEE SOCKWELL (1952), *Associate Professor of Operative Dentistry*
D.D.S., 1952 (Emory)

JAMES EARL SOMERS (1957), *Clinical Instructor in Psychiatry*
A.B., 1949 (North Carolina); M.D., 1953 (Duke)

CLEMENS SOMMER (1939), *Professor of the History of Art*
Ph.D., 1919 (Freiburg)

ROY ELMER SOMMERFELD (1956), *Associate Professor of Education*
B.S., 1937 (Western Michigan); M.A., 1947, Ph.D., 1952 (Michigan)

JOHN MITCHELL SORROW (1954), *Assistant Professor of Medicine and Assistant to the Dean of the School of Medicine*
B.S., 1943 (North Carolina); M.D., 1946 (Pennsylvania)

JOHN BRIGHT SOWTER (1955), *Associate Professor of Prosthodontics*
D.D.S., 1952 (Pennsylvania); M.Sc., 1959 (Ohio State)

WALTER SPEARMAN (1935), *Professor of Journalism*
A.B., 1929, A.M., 1937 (North Carolina)

REX WILSON SPEERS (1961), *Instructor in Child Psychiatry*
B.S., 1942, M.D., 1944 (Utah)

JESSE GARNET SPENCER (1961), *Research Associate in Chemistry*
B.S., 1957 (North Carolina); M.S., 1959 (Virginia)

JOHN CURTIS SPENCER (1960), *Captain, United States Navy; Professor of Naval Science*
B.S., 1939 (United States Naval Academy)

JOHN KEITH SPITZNAGEL (1957), *Associate Professor of Bacteriology and Assistant Professor of Medicine*
B.A., 1943, M.D., 1946 (Columbia)

GEORGE HANSFORD SPOONER (1958), *Instructor in Biochemistry and Nutrition*
B.S., 1950 (University of Miami); Ph.D., 1958 (North Carolina)

DONALD KENNETH SPRINGEN (1959), *Instructor in English*
B.A., 1951 (California); M.A., 1953 (Northwestern)

CORYDON PERRY SPRUILL (1922), *Alumni Distinguished Professor of Economics (1961)*
A.B., 1920 (North Carolina); B.Litt., 1922 (Oxford)

WILLIAM HUTCHINSON SPRUNT III (1952), *Clinical Associate Professor of Radiology*
B.S., 1942 (Davidson); M.D., 1945 (Harvard)

JAGDISH-NARAIN SRIVASTAVA (1961), *Visiting Research Associate in Statistics*
M.Sc., 1954 (Lucknow University)

TALBERT LACY STALLINGS, JR. (1961), *Clinical Instructor in Surgery*
A.B., 1950, M.D., 1954 (Duke)

RIA STAMBAUGH (1961), *Instructor in German*
A.B., 1958 (Piedmont College)

CHARLES CLAUD STAMEY (1959), *Clinical Instructor in Pediatrics*
A.B., 1949 (North Carolina); M.D., 1953 (Harvard)

JAMES GORDON STEAGALL (1956), *Bureau of Conferences and Short Courses, Extension Division*
B.S. in B.A., 1954 (North Carolina)

ALBERT STEWART, JR. (1957), *Clinical Assistant Professor of Medicine*
B.A., 1941 (North Carolina); M.D., 1944 (Washington)

ALEC THOMPSON STEWART (1960), *Associate Professor of Physics*
B.Sc., 1946, M.S., 1949 (Dalhousie); Ph.D., 1952 (Cambridge)

PEARSON HASLAM STEWART (1952), *Lecturer in Planning*
A.B., 1940 (Amherst); M.C.P., 1946 (Massachusetts Institute of Technology)

WILLIAM S. STEWART (1956), *Lecturer in Business Law*
B.S., 1947 (Georgia Institute of Technology); LL.B., 1949 (Harvard)

ROBERT EDWIN STIPE (1957), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1950, LL.B., 1953 (Duke); M.R.P., 1959 (North Carolina)

JOSEPH ST. JEAN, JR. (1957), *Associate Professor of Geology*
B.S., 1949 (College of Puget Sound); M.A., 1953, Ph.D., 1956 (Indiana)

FREDERICK W. STOCKER (1952), *Clinical Associate Professor of Surgery (Ophthalmology)*
M.D., 1920 (Bern)

EDITH VIRGINIA STONE (1959), *Professor of Nursing (Community Nursing)*
R.N., 1934 (Stuart Circle Hospital); B.S., 1944 (William and Mary); M.A., 1945, Ph.D., 1960 (North Carolina)

STERLING AUBREY STOUDEMIRE (1924), *Professor of Spanish*
A.B., 1923, A.M., 1924, Ph.D., 1930 (North Carolina)

JOSEPH WARD STRALEY (1944), *Professor of Physics*
B.S. in Ed., 1936 (Bowling Green State University); M.Sc., 1937, Ph.D., 1941 (Ohio State)

WILLIAM RINGGOLD STRAUGHN, JR. (1944), *Associate Professor of Bacteriology and Adviser in the General College*
B.S., 1935 (Mansfield State Teachers College); M.S., 1940 (Cornell); Ph.D., 1958 (Pennsylvania)

ALBRECHT BENNO STRAUSS (1960), *Assistant Professor of English*
B.A., 1942 (Oberlin); M.A., 1948 (Tulane); Ph.D., 1956 (Harvard)

WILLIAM DOUGLAS STRICKLAND (1956), *Assistant Professor of Operative Dentistry*
B.S., 1950 (Wake Forest); D.D.S., 1956 (North Carolina)

HANS HERMANN STRUPP (1957), *Associate Professor of Psychology in the Departments of Psychiatry and Psychology and Director of Psychological Services, Department of Psychiatry*
A.B., 1945, A.M., 1947, Ph.D., 1954 (George Washington)

OTTO STUHLMAN, JR. (1919), *Professor of Physics, Emeritus (1953)*
B.A., 1907 (Cincinnati); M.A., 1909 (Illinois); Ph.D., 1911 (Princeton)

CLIFFORD MAX STURDEVANT (1950), *Professor of Operative Dentistry*
D.D.S., 1943 (Emory)

ROGER EDWARD STURDEVANT (1950), *Professor of Operative Dentistry*
D.D.S., 1916 (Nebraska)

KENNETH SUGIOKA (1954), *Associate Professor of Surgery (Anesthesiology)*
B.S., 1946 (Denver); M.D., 1949 (Washington University)

FRIEDRICH THEODOR SULZER (1959), *Assistant Professor of Sanitary Science*
Dipl. Ing. Chem., 1946, Dr. Sc. Techn., 1955 (Swiss Federal Institute of Technology)

GEORGE KENDRICK SUMMER (1957), *Assistant Professor of Pediatrics*
B.S., 1944 (North Carolina); M.D., 1951 (Harvard)

EDWARD DONALD SUMNER (1961), *Instructor in Pharmacy*
B.S. in Chem., 1948 (Wofford); S.B. in Phar., 1950 (Medical College of South Carolina)

ESTHER K. SUMP (1952-56; 1958), *Assistant Clinical Professor of Nursing and Director of In-Service Education, North Carolina Memorial Hospital*
B.S., 1938 (Ohio); M.S., 1947 (Western Reserve)

ALBERT IRVING SUSKIN (1936), *Professor of Latin*
A.B. in Educ., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)

BENJAMIN FRANKLIN SWALIN (1935), *Professor of Music in Extension; Director, North Carolina Symphony Orchestra*
B.S., 1928, M.A., 1930 (Columbia); Ph.D., 1932 (Vienna); Diplomas, 1926, 1928 (Institute of Musical Art, New York City); Diplomas, 1932 (Hochschule für Musik, Vienna)

MARGARET CATHERINE SWANTON (1948), *Associate Professor of Pathology*
A.B., 1943 (North Carolina); M.D., 1946 (Johns Hopkins)

LUTHER RAYMOND TAFF (1956), *Associate Professor of Education*
A.B., 1936, M.Ed., 1952, Ph.D., 1954 (North Carolina)

ERNEST WILLIAM TALBERT (1949), *Professor of English*
A.B., 1929 (San Jose State College); M.A., 1931, Ph.D., 1936 (Stanford)

LUTHER MARCUS TALBERT (1958), *Assistant Professor of Obstetrics and Gynecology*
B.A., 1949 (Emory and Henry); M.D., 1953 (Virginia)

DONALD GENTRY TARBET (1952), *Professor of Education*
B.S., 1938, M.E., 1946, Ed.D., 1952 (Missouri)

GEORGE VANDERBECK TAYLOR (1952), *Associate Professor of History and Modern Civilization*
B.A., 1941 (Rutgers); M.A., 1949, Ph.D., 1950 (Wisconsin)

HARDEN FRANKLIN TAYLOR (1949), *Consultant in the Institute of Fisheries Research*
A.B., 1913 (Trinity College); Sc.D. (Duke)

HERMAN WARD TAYLOR, JR. (1960), *Instructor in Classics*
A.B., 1957 (North Carolina)

ISAAC MONTROSE TAYLOR (1952), *Associate Professor of Medicine*
A.B., 1942 (North Carolina); M.D., 1945 (Harvard)

JAMES ALEXANDER TAYLOR (1949), *Clinical Associate Professor of Medicine and Associate University Physician*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)

JENNINGS BRYAN TAYLOR (1958), *Research Associate in Bacteriology*
A.B., 1921, M.S., 1922 (Kentucky)

RANSOM THEODORE TAYLOR (1956), *Associate Professor of German*
Lic.Oec., 1939 (Handelshochsch., St. Gallen, Switzerland); A.M., 1949 (U.C.L.A.); Ph.D., 1956 (California)

WILLIAM WEST TAYLOR (1952), *Instructor in Hospital Pharmacy and Chief Pharmacist, North Carolina Memorial Hospital*
S.B., 1947 (North Carolina)

WILLIAM ADOLPH TERRILL (1951), *Professor of Accounting*
B.B.A., 1938, B.S., 1940 (Cincinnati); M.S., 1949, Ph.D., 1952 (Illinois); C.P.A., 1952 (State of Illinois)

JOHN WALTER THIBAUT (1953), *Professor of Psychology and Research Professor in the Institute for Research in Social Science*
B.A., 1939 (North Carolina); Ph.D., 1949 (Massachusetts Institute of Technology)

ANN COBB THOMAS (1961), *Instructor in Nursing (Medical-Surgical Nursing)*
B.S.N., 1960 (South Carolina); R.N.; M.N., 1961 (Emory)

COLIN GORDON THOMAS, JR. (1952), *Professor of Surgery*
B.S., 1940, M.D., 1943 (Chicago)

DONALD BRETT THOMAS (1959), *Instructor in Public Health Nursing*
A.B., 1955, M.A., 1958 (Princeton)

HENRY CARRISON THOMAS (1957), *Professor of Chemistry*
B.S. in Chem., 1931, M.S., 1932 (North Carolina); Ph.D., 1935 (Yale)

MARY RUSSELL THOMAS (1960), *Circulation Librarian, Division of Health Affairs*
A.B., 1938 (Goucher); M.A., 1939 (Columbia)

WILLIAM GRADY THOMAS (1961), *Audiologist and Instructor in Surgery*
B.S., 1957 (Appalachian State Teachers College); M.A., 1961 (Washington University)

HERMAN ORA THOMPSON (1946), *Professor of Pharmacy*
S.B. in Phar., 1937 (North Carolina); M.S., 1940, Ph.D., 1944 (Purdue)

LLOYD JAMES THOMPSON (1960), *Clinical Professor of Psychiatry*
A.B., 1917 (Missouri); M.D., 1919 (Washington University)

ANN FORBES THORNE (1961), *Instructor in Nursing (Medical-Surgical Nursing)*
B.S.N., 1956 (Duke); R.N., M.S.N., 1961 (North Carolina)

GARETH D. THORNE (1957), *Lecturer in Psychology in Department of Psychiatry*
B.A., 1951, M.A., 1954 (Denver)

WELDON THORNTON (1961), *Instructor in English*
B.A., 1955 (Mercer); M.A., 1957 (Emory); Ph.D., 1961 (Texas)

LEWIS SUMNER THORP (1957), *Clinical Instructor in Medicine*
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)

GEORGE CHARLES THRASHER, JR. (1960), *Clinical Instructor in Psychiatry*
A.B., 1951 (St. Johns); M.D., 1956 (Virginia)

JEAN HARMON THRASHER (1961), *Assistant Professor of Sociology, and Research Associate in the Social Research Section of the Division of Health Affairs and Institute for Research in Social Science*
A.B., 1956 (Drake); M.A., 1959, Ph.D., 1961 (North Carolina)

[63]THELMA GWINN THURSTONE (1952), *Professor of Education*
A.B., 1917, B.S. in Ed., 1920 (Missouri); A.M., 1923 (Carnegie Institute of Technology); Ph.D., 1926 (Chicago)

CHARLES WALTER TILLETT III (1957), *Clinical Assistant Professor of Surgery (Ophthalmology)*
A.B., 1942 (North Carolina); M.D., 1946 (Johns Hopkins)

LOIS PUTNAM TILLMAN (1957), *Instructor in Medical Technology (Microbiology)*
B.S., 1946 (Mississippi State College for Women)

ROLLIE TILLMAN, JR. (1957-58; 1960), *Lecturer in Marketing*
B.S. in B.A., 1955 (North Carolina); M.B.A., 1957 (Harvard)

ROBERT LANSING TIMMONS (1958), *Assistant Professor of Surgery*
B.S., 1950 (Yale); M.D., 1953 (Harvard)

GEORGE BROWN TINDALL (1958), *Associate Professor of History*
A.B., 1942 (Furman); M.A., 1948, Ph.D., 1951 (North Carolina)

AUBREY GRANVILLE TOLLEY (1956), *Assistant Professor of Psychiatry*
M.D., 1952 (Virginia)

HENRY ROLAND TOTTEN (1913), *Professor of Botany*
A.B., 1913, A.M., 1914, Ph.D., 1923 (North Carolina); LL.D. (Atlantic Christian)

NEAL HERRED TRACY (1958), *Associate Professor of Education*
B.S., 1940 (North Dakota State College); M.Ed., 1950 (South Dakota); Ed.D., 1958 (Colorado)

RALPH MCCOY TRIMBLE (1923), *Professor of Applied Mathematics*
C.E., 1921 (Virginia); S.M., 1927 (North Carolina)

[64]ELIZABETH SIMMONS TUCKER (1957), *Chemistry Librarian*
A.B., 1957 (North Carolina)

GEORGE REGINALD TUCKER, JR. (1959), *Clinical Instructor in Medicine*
B.S., 1952, M.D., 1955 (North Carolina)

EMILY TUFTS (1955), *Clinical Instructor in Pediatrics*
A.B., 1946 (North Carolina); M.D., 1950, M.S., 1954 (Temple)

LARRY TURNER (1952), *Clinical Assistant Professor of Surgery (Ophthalmology)*
A.B., 1935, M.D., 1939 (Duke)

JAMES WESLEY TUTTLETON (1961), *Instructor in English*
B.A., 1955 (Harding College); M.A., 1957 (North Carolina)

[65]EUNICE NICKERSON TYLER (1945), *Professor of Public Health Education*
Ph.B., 1931 (Brown); C.P.H., 1933, M.P.H., 1936, Ph.D., 1946 (Yale)

SHEPPARD YOUNG TYREE, JR. (1946), *Professor of Chemistry*
B.S., 1942, Ph.D., 1946 (Massachusetts Institute of Technology)

HERMAN ALFRED TYROLER (1960), *Associate Professor of Epidemiology*
A.B., 1943 (Ohio); M.D., 1947 (New York University College of Medicine)

BERTHOLD LOUIS ULLMAN (1944), *Kenan Professor of Classical Languages and Literatures (1944), Emeritus (1959)*
A.B., 1903, Ph.D., 1908 (Chicago)

CLYDE JEFFERSON UMPHLETT (1961), *Instructor in Botany*
B.S., 1951, M.S., 1957 (Virginia Polytechnic Institute); Ph.D., 1961 (North Carolina)

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63. Absent on leave, 1961-1962.
64. Resigned August 15, 1961.
65. Absent on leave, 1961-1962.

HARRY STEPHAN UPSHAW (1958), *Associate Professor of Psychology*
A.B., 1949 (Chicago); M.A., 1951 (Northwestern); Ph.D., 1956 (North Carolina)

LON ESKER USSERY, JR. (1956), *Instructor in Psychology in Department of Psychiatry*
B.A., 1950 (Richmond)

RUPERT BAYLESS VANCE (1929), *Kenan Professor of Sociology (1945) and Research Professor in the Institute for Research in Social Science*
A.B., 1920 (Henderson-Brown); A.M., 1921 (Vanderbilt); Ph.D., 1928 (North Carolina); LL.D. (Hendrix College; Arkansas)

CHARLES DURWARD VAN CLEAVE (1940), *Professor of Anatomy*
A.B., 1925 (Colorado); Ph.D., 1928 (Chicago)

HENDRIK VAN DAM (1961), *Research Associate in Physics*
Candidate examen, 1953, Examen Doctorale, 1959 (University of Amsterdam, Holland)

MAURICE TAYLOR VAN HECKE (1921), *Kenan Professor of Law (1955)*
Ph.B., 1916, J.D., 1917 (Chicago)

JUDSON JOHN VAN WYK (1955), *Associate Professor of Pediatrics*
A.B., 1943 (Hope College); M.D., 1948 (Johns Hopkins)

GEORGE PIERCY VENNART (1954-56; 1960), *Associate Professor of Pathology*
A.B., 1948 (Wesleyan); M.D., 1953 (Rochester)

CHARLES ROBERTSON VERNON (1956), *Clinical Assistant Professor of Psychiatry*
A.B., 1948 (North Carolina); M.D., 1952 (Western Reserve)

JAMES TAYLOR VERNON (1959), *Clinical Assistant Professor of Psychiatry*
A.B., 1942 (North Carolina); M.D., 1945 (Washington)

TOM ALFORD VESTAL (1957), *Clinical Instructor in Obstetrics and Gynecology*
A.B., 1949 (North Carolina); M.D., 1953 (Duke)

MINTAUTS MICKEY VITOLS (1961), *Clinical Instructor in Psychiatry*
Dr. Med., 1944 (University of Hamburg, Germany); M.D., 1956 (North Carolina)

FLORINE MORRIS VIVERETTE (1961), *Instructor in English*
B.A., 1944 (East Carolina College); M.A., 1946 (North Carolina)

FREDERICK WRIGHT VOGLER (1961), *Instructor in French*
A.B., 1953, M.A., 1955, Ph.D., 1961 (North Carolina)

[66]ROBERT BROWN VOITLE (1952), *Associate Professor of English*
A.B., 1949, A.M., 1950, Ph.D., 1954 (Harvard)

VAMIK DJAMAL VOLKAN (1961), *Clinical Instructor in Psychiatry*
M.D., 1956 (University of Ankara, Turkey)

WILLIAM JOSEPH WADDELL (1958), *Assistant Professor of Pharmacology*
A.B., 1951, M.D., 1955 (North Carolina)

PAUL WOODFORD WAGER (1926), *Professor of Political Science*
B.S., 1917 (Hobart College); A.M., 1920 (Haverford); Ph.D., 1927 (North Carolina)

ROBERT HOWARD WAGNER (1950), *Associate Professor of Pathology in Pathological Chemistry and Associate Professor of Biochemistry and Nutrition*
A.B., 1943 (DePauw); Ph.D., 1950 (Cincinnati)

HIAWATHA BROWN WALKER (1959), *Associate Professor of Public Health Education*
B.S., 1939 (Florence State Teachers College); M.A., 1946 (Peabody); M.P.H., 1947, Ph.D., 1959 (North Carolina)

PETER FRANKLIN WALKER (1958), *Assistant Professor of History and Modern Civilization*
A.B., 1952 (Mississippi College); M.A., 1956, Ph.D., 1958 (Vanderbilt)

EARLE WALLACE (1956), *Assistant Professor of Political Science*
A.B., 1951 (The Citadel); M.A., 1953, Ph.D., 1959 (North Carolina)

WESLEY H. WALLACE (1952), *Associate Professor of Radio, Television, and Motion Pictures*
B.S., 1932 (North Carolina State); M.A., 1954 (North Carolina)

MARTIN SIMON WALLACH (1959), *Assistant Professor of Psychology in the Departments of Psychology and Psychiatry*
B.A., 1954 (City College of New York); M.A., 1956, Ph.D., 1959 (North Carolina)

LOUISE MURPHY WARD (1952), *Instructor in Bacteriology and Research Associate in Medicine*
A.B., 1933 (Woman's College, North Carolina); M.P.H., 1947 (Michigan)

66. Absent on leave, spring, 1962, as Kenan Professor for the Term of One Semester.

JAMES A. WARDEN (1959), *Instructor in Hospital Administration and Assistant Director of North Carolina Memorial Hospital*
A.B., 1942 (Dartmouth)

SARAH LOU WARREN (1956), *Assistant Professor of Preventive Medicine and Medicine*
A.B., 1944 (North Carolina); M.D., 1949 (Medical College of Virginia)

[67]GLENN ELSON WATKINS (1958), *Assistant Professor of Music*
A.B., 1948, M.M., 1949 (Michigan); Ph.D., 1953 (Rochester)

RALPH MARTIN WATKINS (1953), *Clinical Associate Professor of Medicine and Preventive Medicine*
B.S., 1918, M.D., 1920 (Syracuse)

LEWIS POINDEXTER WATTS, JR. (1958), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1949 (Wofford); J.D., 1957 (North Carolina)

SARA BEDINI WEAVER (1960), *Instructor in Physical Therapy*
B.S., 1954 (Simmons College)

ALEXANDER WEBB, JR. (1953), *Clinical Associate Professor of Surgery*
A.B., 1933 (North Carolina); M.D., 1937 (Harvard)

JAMES MURRAY WEBB (1947), *Professor of Planning*
A.B. in Architecture, 1937 (California); M.C.P., 1946 (Massachusetts Institute of Technology)

WILLIAM PHILLIP WEBSTER (1959), *Dental Research Associate and Research Associate in Pathology*
B.S., 1955, D.D.S., 1959 (North Carolina)

FREDERICK RENFROE WEEDON (1956), *Visiting Professor of Anatomy*
B.S., 1921, M.S., 1923 (Florida); M.D., 1929 (Rush Medical College, University of Chicago)

DONALD DOUGLAS WEIR (1958), *Assistant Professor of Medicine and Preventive Medicine*
B.A., 1948 (Drake); M.D., 1953 (Iowa)

CHARLES MANUEL WEISS (1956), *Associate Professor of Sanitary Science*
B.S., 1939 (Rutgers); Ph.D., 1950 (Johns Hopkins)

SHIRLEY FRIEDLANDER WEISS (1958), *Lecturer in Planning and Research Associate in the Institute for Research in Social Science*
B.A., 1942 (Rutgers); M.R.P., 1958 (North Carolina)

HENRY BRADLEY WELLS (1958), *Assistant Professor of Biostatistics*
B.A., 1950 (Emory); M.S.P.H., 1953, Ph.D., 1959 (North Carolina)

[68]JAMES HOWARD WELLS (1958), *Assistant Professor of Mathematics*
B.S., 1952, M.S., 1954 (Texas Technological College); Ph.D., 1958 (Texas)

WARNER LEE WELLS (1952), *Associate Professor of Surgery*
A.B., 1934, M.D., 1938 (Duke)

WILLIAM SMITH WELLS (1935), *Kenan Professor of English (1955)*
A.B., 1929, A.M., 1930 (Southern California); Ph.D., 1935 (Stanford)

GEORGE SCHLAGER WELSH (1953), *Professor of Psychology in Department of Psychology, Clinical Associate Professor of Psychology in Department of Psychiatry, and Research Professor in the Institute for Research in Social Science*
A.B., 1940 (Pennsylvania); Ph.D., 1949 (Minnesota)

LOUIS GORDON WELT (1952), *Professor of Medicine*
A.B., 1934 (New York); M.D., 1938 (Yale)

SIEGFRIED WENZEL (1960), *Instructor in English*
B.A., 1952 (University of Paraná, Brazil); M.A., 1956 (Ohio); Ph.D., 1960 (Ohio State)

ALONZO FRED WEST (1961), *Instructor in Parasitology*
B.A., 1955 (Marietta College); M.S., 1959, Ph.D., 1961 (Purdue)

ROBERT HASLEY WETTACH (1921), *Professor of Law*
A.B., 1913, M.A., 1914, LL.B., 1917 (Pittsburgh); S.J.D., 1921 (Harvard)

[69]CLAYTON EUGENE WHEELER, JR. (1961), *Professor of Dermatologic Medicine*
B.A., 1938, M.D., 1941 (Wisconsin)

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67. Absent on leave, 1961-1962.
68. Absent on leave, 1961-1962.
69. Effective December 1, 1961.

WALTER HALL WHEELER (1951), *Associate Professor of Geology*
B.S., 1945, M.S., 1948 (Michigan); Ph.D., 1951 (Yale)

PAUL FREDERICK WHITAKER (1953), *Clinical Associate Professor of Psychological Medicine*
M.D., 1922 (Medical College of Virginia); LL.D. (North Carolina)

JAMES STARK WHITE, JR. (1956), *Clinical Instructor in Pediatrics*
B.S., 1945 (North Carolina); M.D., 1947 (Northwestern)

KERR LACHLAN WHITE (1953), *Associate Professor of Preventive Medicine and Medicine*
B.A., 1940, M.D., C.M., 1949 (McGill)

WILLIAM ALEXANDER WHITE (1944), *Professor of Geology*
A.B., 1930 (Duke); A.M., 1931, Ph.D., 1938 (North Carolina); M.S., 1934 (Montana School of Mines)

ARTHUR MURRAY WHITEHILL, JR. (1949), *Reynolds Professor of Human Relations in Industry (1955)*
B.S., 1942, M.A., 1943, Ph.D., 1945 (Virginia)

MAURICE WHITTINGHILL (1942), *Professor of Zoology*
A.B., 1931 (Dartmouth); Ph.D., 1937 (Michigan)

WILLIAM M. WHYBURN (1948), *Kenan Professor of Mathematics (1948)*
A.B., 1922, M.A., 1923, Ph.D., 1927 (Texas); LL.D. (Texas Technological College)

WARREN JAKE WICKER (1955), *Assistant Director of the Institute of Government*
A.B., 1948, M.A., 1950 (North Carolina)

ABE WIDRA (1955), *Assistant Professor of Bacteriology*
A.B., 1948 (Brooklyn); M.S., 1952 (Florida); Ph.D., 1954 (Pennsylvania)

JACK KNIGHT WIER (1961), *Assistant Professor of Pharmacognosy*
Ph.B., 1945 (Wisconsin); B.S. in Phar., 1956 (Nebraska); M.S., 1959, Ph.D., 1961 (Washington)

SIM OWENBEY WILDE, JR. (1960), *Instructor in Education, Bureau of Class Instruction and Assistant Director, Extension Division*
B.S., 1949 (Appalachian State); M.A., 1957 (Western Carolina College)

WILLIAM LEON WILEY (1925-28; 1931), *Kenan Professor of French (1955)*
A.B., 1921 (Chattanooga); A.M., 1925, Ph.D., 1930 (Harvard); Litt.D. (Chattanooga)

CHARLES BAYNES WILKERSON (1952), *Clinical Instructor in Medicine*
A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Virginia)

ROBERT W. WILLETT (1961), *Clinical Instructor in Medicine*
B.S., 1948, M.D., 1948 (Duke)

AUSTIN BEATTY WILLIAMS (1952-55; 1956), *Associate Professor in the Institute of Fisheries Research*
A.B., 1943 (McPherson); Ph.D., 1951 (Kansas)

CHARLES FREDERICK WILLIAMS (1957), *Clinical Instructor in Pediatrics*
A.B., 1930 (North Carolina); M.D., 1934 (Jefferson)

THOMAS FRANKLIN WILLIAMS (1956), *Associate Professor of Medicine and Preventive Medicine*
B.S., 1942 (North Carolina); M.A., 1943 (Columbia); M.D., 1950 (Harvard)

[70]JOEL R. WILLIAMSON (1960), *Instructor in Modern Civilization*
A.B., 1949, M.A., 1951 (South Carolina)

GERTRUDE MITCHELL WILLIS (1957), *Clinical Assistant Professor of Medicine*
B.A., 1927 (Wayne); M.D., 1930 (Michigan)

HENRY STUART WILLIS (1954), *Clinical Professor of Medicine*
B.A., 1914 (North Carolina); M.D., 1919, M.A., 1920 (Johns Hopkins)

IAN CLARKE WILSON (1959), *Lecturer in Psychiatry*
M.B., Ch.B., 1946, D.P.H., 1950 (University of Edinburgh, Scotland); D.P.M., 1956 (University of Leeds, England)

JOHN ERIC WILSON (1950), *Associate Professor of Biochemistry and Nutrition*
S.B., 1941 (Chicago); M.S., 1944 (Illinois); Ph.D., 1948 (Cornell)

70. Resigned September 1, 1961.

LOUIS ROUND WILSON (1901-32; 1942), *Professor of Library Science and Administration, Emeritus (1959)*
A.B., 1899, A.M., 1902, Ph.D., 1905 (North Carolina); Litt.D. (Denver); LL.D. (Haverford; North Carolina); L.H.D. (Catawba)

WALTER HOWARD WILSON (1952), *Clinical Associate Professor of Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Jefferson)

WILLIAM LENOIR WILSON (1959), *Visiting Associate Professor of Public Health Administration*
A.B., 1921, B.S., 1926 (Southern Methodist); M.D., 1926 (Baylor); M.P.H., 1947 (Johns Hopkins)

REX SHELTON WINSLOW (1929), *Professor of Economics and Director of the Bureau of Business Services and Research, School of Business Administration*
A.B., 1923 (Simpson College); A.M., 1929 (Illinois); Ph.D., 1936 (North Carolina)

ARTHUR SIMEON WINSOR (1919), *Professor of Mathematics, Emeritus (1956)*
A.B., 1914, A.M., 1915 (Mount Allison College); Ph.D., 1927 (Johns Hopkins)

WILLIAM ALPHONSO WITHERS (1952), *Clinical Assistant Professor of Medicine*
A.B., 1932 (North Carolina); M.D., 1937 (Chicago)

A. STARK WOLKOFF (1959), *Assistant Professor of Obstetrics and Gynecology*
B.S., 1946 (Scranton); M.D., 1950 (Hahnemann)

NATHAN ANTHONY WOMACK (1951), *Professor of Surgery*
S.B., 1922 (North Carolina); M.D., 1924 (Washington University)

DOROTHY ADKINS WOOD (1948), *Professor of Psychology*
B.S., 1931, Ph.D., 1937 (Ohio State)

ERNEST HARVEY WOOD (1952), *Professor of Radiology*
B.A., 1935 (Duke); M.D., 1939 (Harvard)

MARION STAUNTON WOOD (1956), *Professor of Nursing*
Diploma in Nursing, 1929 (Garfield Memorial Hospital, Washington); R.N.; B.S., 1939 (Ohio State); M.A., 1955 (Teachers College, Columbia)

MATTHEW THOMAS WOOD (1958), *Assistant Professor of Prosthodontics*
A.B., 1954, D.D.S., 1958 (North Carolina)

SHIRLEY F. WOODELL (1960), *Lecturer in Residence, School of Business Administration*
A.B., 1927 (Columbia)

EDWARD JAMES WOODHOUSE (1926), *Professor of Political Science, Emeritus (1954)*
B.A., 1903 (Randolph-Macon); LL.B., 1907 (Virginia)

[71]JAMES WATSON WOODS (1953), *Associate Professor of Medicine*
A.B., 1939 (Tennessee); M.D., 1943 (Vanderbilt)

ISAAC CLARK WRIGHT (1952), *Clinical Assistant Professor of Medicine*
B.S., 1942 (North Carolina); M.D., 1944 (Maryland)

JAMES RHODES WRIGHT (1960), *Clinical Instructor in Surgery*
A.B., 1937 (North Carolina); M.D., 1940 (Maryland)

JOHN JOSEPH WRIGHT (1947), *Professor of Public Health Administration*
A.B., 1931, M.D., 1935 (Vanderbilt); M.P.H., 1939 (Johns Hopkins)

JULIAN MEADE WRIGHT (1961), *Lecturer in Accounting*
B.S., 1951 (Hampden-Sydney); M.B.A., 1954 (Pennsylvania)

PAUL JOSEPH WURDACK (1961), *Assistant Professor of Pharmacy*
B.S. in Phar., 1949, M.S., 1952, Ph.D., 1959 (Pittsburgh)

SEYMOUR WALTER WURFEL (1960), *Professor of Law*
A.B., 1927 (Pomona); LL.B., 1930 (Harvard); J.D., 1950 (Emory)

VIOLET WURFEL (1960), *Visiting Lecturer in Political Science*
A.B., 1928 (Pomona); M.A., 1945, Ph.D., 1951 (Virginia)

EARL WYNN (1938), *Professor of Radio, Television, and Motion Pictures and Director of the Communication Center*
A.B., 1932 (Augustana College); M.S., 1934 (Northwestern)

WILLIAM GEOFFREY WYSOR, JR. (1956), *Assistant Professor of Medicine*
B.A., 1947, M.D., 1950 (Virginia)

FRANCES LYDIA YOCOM (1946), *Chief, Catalogue Department, University Library*
A.B., 1921 (Oberlin); B.L.S., 1931 (Western Reserve); M.A. in L.S., 1939 (California)

71. Absent on leave, June 1, to December 31, 1961.

LLOYD ROBERT YONCE (1957), *Assistant Professor of Physiology*
B.S., 1949 (Montana State); M.S., 1952 (Oregon State); Ph.D., 1955 (Michigan)
DANIEL TEST YOUNG (1955), *Assistant Professor of Medicine*
B.S., 1946 (Guilford); M.D., 1950 (Harvard)
DAVID ALEXANDER YOUNG (1945), *Clinical Professor of Psychiatry*
A.B., 1928 (North Carolina); M.D., 1931 (Harvard)
JOHN E. YOUNG (1950), *Director of Television, Chapel Hill Studios, WUNC-TV*
A.B., 1948 (North Carolina); M.A., 1956 (Northwestern)
WILLIAM BEAUREGARD YOUNG (1957), *Clinical Assistant Professor of Medicine*
M.D., 1948 (Emory)
GEORGE TZUCHIAO YU (1961), *Visiting Assistant Professor of Political Science*
A.B., 1954, M.A., 1957, Ph.D., 1961 (California, Berkeley)
NAKHLEH PACIFICO ZARZAR (1959), *Clinical Instructor in Psychiatry*
B.A., 1952, M.D., 1956 (American University, Beirut, Lebanon)
ROBERT ZEPPA (1958), *Assistant Professor of Surgery*
A.B., 1948 (Columbia); M.D., 1952 (Yale)
DORA ZIA (1961), *Chemistry Librarian*
A.B., 1949 (National Fuhtang University, Shanghai, China); B.A., 1951 (Florida Southern College); M.A., 1952 (Washington); M.A.L.S., 1961 (Syracuse)
BETTY GRAY ZOUCK (1949), *Botany-Zoology Librarian*
A.B., 1933, A.B. in L.S., 1934 (North Carolina)

GRADUATE APPOINTMENTS, 1961-1962

The following list includes only the names of graduate appointees who have responsibility for teaching or laboratory instruction.

Teaching Fellows

JAMES REX BAIRD, B.S. ..... Botany
ROBERT JOHN BARNETT, JR., B.A. ..... Classics
CHARLES M. BONJEAN, A.B., M.A. ..... Sociology
NORMAN DONALD BROWN, A.B., M.A. ..... History
ROBERT T. CARGO, A.B., M.A. ..... Romance Languages
AMBROSE A. CLEGG, B.A., M.A. ..... Education
DOUGLAS EVERETT CRABTREE, A.B., M.A. ..... Mathematics
GARRET JAY ETGEN, B.S., M.S. ..... Mathematics
SUSAN ELIZABETH FEIL, B.S. ..... Chemistry
DONALD MCKINLEY FREEMAN, A.B., M.A. ..... Political Science
WALTER GEORGE, M.A. ..... Germanic Languages
ANNE GRAY, B.A. ..... Economics
CAROL ANN HUBERT, A.B., M.A. ..... English
GARY L. HYDE, B.S. ..... Economics
CAROL HILTY KEPLER, B.A. ..... Zoology
SANDOR LAJOR LEHOCZKY, A.B. ..... Physics
CHARLES BRUCE LOWER, B.A. ..... English
ROBERT JOSEPH MAYBERRY, A.B., M.A. ..... Romance Languages
BENJAMIN ARTHUR MORGAN III, B.S. ..... Geology
CHAPLAIN WILLIS MORRISON, B.E., B.F.S., M.A. ..... History
ADRI CLARK PEACOCK, B.A. ..... Romance Languages
DALE THOMAS RENGUETTE, M.A. ..... English
GORDON ROBERTSON, JR., B.A. ..... History
BETTY WISE SHELLENBARGER, A.B. ..... Chemistry
FRANK WALMSLEY, B.S. ..... Chemistry
CHARLES DUANE WARD, B.A. ..... Psychology

Part-Time Instructors

BARRY B. ADAMS, B.S., M.A. ..... English
DOUGLAS ALEXANDER II, B.A., M.A. ..... Romance Languages
ANN ROYAL ARTHUR, B.S.M., M.M. ..... Germanic Languages
EARL F. BARGAINNIER, A.B. ..... English
LOUISE KENNAMER BARNETT, B.A. ..... English
ROBERT EGNER BEITZELL, B.A., M.A. ..... History
LAWTON EDWARD BENNETT, B.A., M.A. ..... Political Science
ROBERT LINN BERNHARDT III, B.S. ..... Mathematics
WARREN JAMES BOE, A.B. ..... Mathematics
ANIL KUMAR BOSE, B.S., M.S. ..... Mathematics
MARGARET ALICE BRADSHAW, B.A., M.A. ..... English
RICHARD LEE BRAND, A.B. ..... Romance Languages
BYRD HARRISON BREEDEN, A.B. ..... Romance Languages
WILLIAM EDWARD BRIGMAN, B.A. ..... Political Science
KENNETH ELISHA BUNTING, A.B. ..... Romance Languages
WILLIAM COY BURRIS, B.A., M.A.T. ..... Political Science
JUDITH ANN EUBANK BUSH, B.S. ..... Mathematics
WILLIAM LEE BYNUM, B.S. ..... Mathematics
SAMUEL MACON CARRINGTON, JR., A.B. ..... Romance Languages
JOHN STANLEY CATLIN, B.A. ..... Classics
ALLEN HARRIS CHAPPEL, B.A., M.A. ..... Germanic Languages
EDWIN RIVES CHEEK, A.B., M.A. ..... English
JOHN LEVAN D. CLARK, A.B. ..... Romance Languages
ROY LLOYD COLEMAN, A.B. ..... Romance Languages
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ALFRED EMILE CORNEBISE, B.A. M.A. ..... History
RAYMOND HOWARD COX, B.S., M.A. ..... Mathematics
REBECCA SLOVER COX, B.S. ..... Mathematics
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JOSEPH CREWS, A.B. ..... Economics
PENELOPE CARTER CROCKETT, B.S. ..... Mathematics
WILLARD TICKNOR DAETSCH, A.B., M.A., A.M. ..... Germanic Languages
SALLY TURNER DALTON, B.S. ..... Mathematics
CALVIN GRIER DAVIS, JR., A.B. ..... Classics
JAMES HERBERT DAVIS, A.B., M.A. ..... Romance Languages
JAMES KENNETH DAY, B.A. ..... Germanic Languages
ALBERT LEONARD DEAL III, B.S. ..... Mathematics
WILL WHITE DEGRUMMOND, A.B., M.A. ..... Classics and Romance Languages
JOHN DEVOGT, B.S. ..... Business Adminstration
JOSEPH DIBERARDINO, A.B. ..... Economics
ROBERT HOWARD DILLARD, A.B. ..... History
EDWARD C. DREYER, B.A. ..... Political Science
RUFUS SHELDON DUNHAM, JR. ..... Germanic Languages
JULIS DUNNING, B.S. ..... Mathematics
RUSSELL E. DURNING, B.A., B.B.A. ..... English
FREDERICK JACKSON EASON, A.B., M.A. ..... Education
JEAN M. EDGERTON, B.A. ..... English
LOIS VIRGINIA EDINGER, A.B., M.Ed. ..... Education
SERGIO DANILO ELIZONDO, A.B. ..... Romance Languages
VALLIN DAYTON ESTES, JR., A.B. ..... Germanic Languages
BAHRAM FARHADIEH, B.S. ..... Pharmacy
MARY D. FARNHAM, A.B. ..... English
THOMAS JAVERY FARNHAM, B.A. M.A. ..... History

ROSEMARIE FUSSENEGGER FAUST, Mag. D. Phar. ..... Pharmacy
ROBERT M. FIGG III, B.S., M.A. ..... English
JESSE FISHER, B.S., A.M. ..... Economics
JACK DAVID FLEER, B.A., M.A. ..... Political Science
CHARLES FLOYD, A.B. ..... Economics
FREDERICK HOWELL FORNOFF, A.B. ..... Romance Languages
WILLIAM JOSEPH FREE, A.B., M.A. ..... English
JOHN ALBERT FRIDY, B.S., M.A. ..... Mathematics
DANIEL HODGES GARRISON, B.A. ..... Classics
JAMES EARL GILL, B.A. ..... English
SARAH GOODMAN GLOVER, B.S. ..... Mathematics
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CHARLES OWEN HADLEY, A.B., M.A. ..... Romance Languages
JAMES HERRICK HALL, B.A., B.D., Th.M. ..... Philosophy
WILLIAM F. HARDEN, B.S. ..... Business Administration
JOHN A. HASLEM, A.B., M.A. ..... Business Administration
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WILBERT JOSEPH HEFFERNAN, JR., B.S., M.A., M.S.W.
JAMES M. HELDMAN, JR., B.A., M.A. ..... English
JAMES VICTOR HEROD, B.S., M.A. ..... Mathematics
CHERRILL PAUL HESTON, B.A., M.A. ..... English
SAMUEL PHILIP HINES, JR., B.A., M.A. ..... English
IDA MASTERS HOLLOWELL, A.B. ..... English
JOSEPH KEMP HOUCK, B.A., M.A. ..... English
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WILLIAM JOSEPH KING, A.B. ..... Classics
KWANGIL KOH, B.S., M.S. ..... Mathematics
WILLIAM CHARLES KURTH, A.B., M.A. ..... Classics
HIDEO KUSAMA, B.A. ..... Physical Education
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JAMES KHAI JIN LIM, Bachelor of Pharmacy ..... Pharmacy
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FRANCIS MILLETT, A.B., M.B.A. ..... Business Administration
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CORA LOUISE NELSON, B.S. ..... Economics
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WILLIAM FISHER PALMER, A.B., M.Ed. ..... Education
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WOLFGANG JOSEPH PASSL, Magister der Pharmacie ..... Pharmacy
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HOWARD POSPESEL, B.A. ..... Philosophy
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MARTIN PRIMACK, B.S., M.A. ..... Economics
WILSON HILL RAINS, A.B. ..... English
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RICHARD FREDERICK RICKERT, B.A. ..... Philosophy
FRANK J. RINALDI, B.A. ..... English
JAMES WESTON ROBERTS, B.A. ..... Political Science
RANDAL FINK ROBINSON, A.B. ..... English
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GERARD FRANCIS RUTAN, B.A., M.A. ..... History
DONALD JOHN SCHILLING, B.A. ..... Economics
ELLIOTT SCHWARTZ, B.S. ..... Business Administration
GEORGE CLIFFORD RICHARD SEPHTON, B.A., M.A. ..... Philosophy
RICHARD D. SHAFFER, B.A., M.A., M.Ed. ..... Education
VINCENT EDMUND SIMONTON, A.B. ..... Physical Education
RICHARD H. SIMPSON, B.B.A., M.B.A. ..... Business Administration
VILHJALMUR GRIMUR SKULASON, Candidatus Pharmaciae ..... Pharmacy
SIDNEY RUFUS SMITH, JR., A.B. ..... Germanic Languages
JERE PELLETIER STARLING, A.B., M.A. ..... English
JEROME HILLEL STERN, B.A. ..... English
HERBERT REYNOLDS STONE, A.B. ..... Romance Languages
EDWARD DONALD SUMMER, B.S. ..... Pharmacy
LEWIS FRANKLYN SUTTON, M.B. ..... Romance Languages
RICHARD LEE SUTTON, B.A. ..... Physical Education
JAMES CHARLES THOMAS, B.A. ..... Germanic Languages
PHYLLIS JOSEPHINE THOMPSON, A.B., M.A. ..... English
WILLIAM RAOUL REAGLE TRANSUE, A.B. ..... Mathematics
WILFRED TURNER, B.S. ..... Mathematics
WILLIAM HAGOOD TURNER, B.S. ..... Mathematics
JUNE MARTIN TUTTLETON, B.A., M.A. ..... English
PETER GEORGE VAN EGMONG, B.A., M.A. ..... English
EMANUEL VEGH, B.A. M.A. ..... Mathematics
PHILIP TYREE WADE, A.B., M.A. ..... English
JAMES ROBERT JEFFERSON WADKINS, B.A. ..... Mathematics
VERNON ALBERT WARD, JR., A.B., M.A. ..... English
THOMAS CLAYTON WARE, B.A., M.A. ..... English
JACK WAYNE WEAVER, B.A., M.A. ..... English

HERBERT FAULKNER WEST, JR., A.B., M.A. ..... English
CLIFTON THOMAS WHYBURN, B.S., M.A. ..... Mathematics
MAX RAY WILLIAMS, B.A., M.A. ..... History
SIDNEY JAMES WILLIAMS, A.B. ..... Romance Languages
KLAUS G. WITZ, B.S., M.A. ..... Mathematics
JOHN EDMUND ZIOLKOWSKI, A.B. ..... Classics

Graduate Assistants

CARL JOEL ABRAHAM, A.B., M.S. ..... Chemistry
DIANE BETTS ADAMS, A.B. ..... Music
JOHN BENJAMIN ADAMS, JR., B.S. ..... Chemistry
RUSSELL AIUTO, B.A. ..... Botany
LUCILLE RUTH ALBRECHT, B.S. ..... Bacteriology and Immunology
DOUGLAS GORDON ALEXANDER, B.A. ..... Zoology
JOHNSON WELLS ASHLEY, JR., B.S. ..... Chemistry
PHILIP CARLTON BAKER, A.B. ..... Botany
BRENDA COMBS BALL, B.A. ..... Psychology
ABDO B. BARDAWIL, B.S., M.S. ..... Chemistry
ROBERT JOHN BARNARD, A.B. ..... Art
LAJPAT RAI BATRA, B.A., B.Sc., M.Sc. ..... Physics
PARKER BRYANT BAUM, B.S., M.S. ..... Chemistry
THEODORE LOTHIAN BELL, B.A. ..... Public Health
CHRISTINE ANNE BERGNER, B.S. ..... Physical Education
PAUL KENNETH BIRKHEAD, A.B., M.A. ..... Geology and Geography
MARGARET A. BLEICK, A.B. ..... Physics
CHARLES NELSON BOEHMS, B.S., M.A. ..... Zoology
KEVIN EDWARD BOGGINS, B.A. ..... Classics
JOHN J. BOLEN, B.S. ..... Public Health
HAROLD A. BOND, B.S. ..... Botany
GAIL BOTTOMLY, B.A. ..... Zoology
WILLIAM H. BOWERS, B.S. ..... Chemistry
JOHN RUSSELL BOZEMAN, B.S. ..... Botany
CHARLES EVERETT BRETT, B.S. ..... Geology and Geography
WARREN HAMILTON BURGESS, B.A., M.Ed. ..... Education
HOWARD EDWIN BURKE, A.B. ..... Physical Education
CLARA BONNIE CARSWELL, B.S., M.Ed. ..... Botany
BARRY AUSTIN CENTINI, B.S., M.S. ..... Geology and Geography
MATHIA ATHINLKUNNATHIL CHACKO, B.S., M.S. ..... Chemistry
JOHN HARVIE CHAFFIN III, B.A. ..... Physics
JAYANATA CHATTERJEE, B.Arch. ..... City and Regional Planning
YOSHIYUKI CHINEN, B.A. ..... Radio, TV, Motion Pictures
JANE CAROLYN CHURCH, B.A. ..... Psychology
GORDON WILLIAM CLARK, A.A., B.A. ..... Dramatic Art
EARL JUNIOR CLINE, B.Arch. ..... City and Regional Planning
PERVY AUGUSTUS CLINE, B.A. ..... Classics
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JAMES GLEN COLLIER, A.B., M.A. ..... History
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JOHN WILLIAM CORR, B.S. ..... Chemistry
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HOWARD R. CRAIG, B.S. ..... Chemistry
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ARTHUR BRUCE CRUMP, A.B. ..... Physical Education

PHILIP JEROME CRUTCHFIELD, B.S. ..... Botany
RICHARD AKIN DAVIS, A.B. ..... History
JOHN L. DELK, B.A. ..... Psychology
JOHN O. deLORGE, M.A. ..... Psychology
ROBERT L. DENNINGHAM, B.F.A., B.S. ..... Physics
DAVID STUART DESKINS, B.S. ..... Chemistry
ROBERT N. DICKINSON, A.B. ..... Chemistry
EDWARD MYERS DOLAN, A.B., M.A. ..... Sociology and Anthropology
SAMUEL J. DOMINIANNI, B.S., M.S. ..... Chemistry
ALLEN C. DOTSON, B.S. ..... Physics
RONALD J. DuBOIE, A.B. ..... Chemistry
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B. STRATTON ELDRIDGE, B.S. ..... City and Regional Planning
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GEORGE SAMUEL HAND, JR., B.S.Ed., M.A.Ed. ..... Zoology
DAVID NOBLE HARPP, A.B., M.A. ..... Chemistry
HENRY JOHN HARRIS, B.A. ..... Philosophy
KHATAB MOHAMED HASSANEIN, B.S., M.P.H. ..... Public Health
HERBERT LOUIS HAWKES, A.B. ..... Physical Education
RICHARD OWEN HAYS, B.S. ..... Physics
ANN SHIRLEY HENDERSON, B.A. ..... Zoology
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OSCAR DON HERMES, A.B. ..... Geology and Geography
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WILLIAM W. HORNER, B.S., M.A. ..... Chemistry
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JEONG HYOK IM, B.S., M.S. ..... Biochemistry and Nutrition
FRANKLIN POPE INMAN, JR., A.B. ..... Biochemistry and Nutrition
NAYYIR FUAD IRANI, B.S., M.S. ..... Chemistry
WALTER JOE JACUMIN, B.S. ..... Public Health
GRACE ROBBINS JAMES, A.B., M.Ed. ..... Education
RAYMOND AZIZ KASSIS, B.S. ..... Chemistry

ALLAN A. KAWADA, B.S. ..... Chemistry
KENNETH BEN KENNEY, B.A. ..... City and Regional Planning
GOVIND SHARAN RAM SWARUP KHANDELWAL, B.Sc., M.Sc. ..... Physics
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KWANG SOO KIM, B.S. ..... Bacteriology and Immunology
SOO MYUNG KIM, B.S. ..... Physics
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ROBERT EARLE KNOWLTON, A.B. ..... Zoology
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JERRY WEBSTER KOONTZ, B.S. ..... Physical Education
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HARRY GENE LOMINAC, B.A. ..... Dramatic Art
CLIFFORD RAMSEY LOVIN, A.B. ..... History
DWAYNE MELVIN LOWDER, A.B. ..... Art
MAI LIIS LUIDE, B.A. ..... Psychology
KENNETH W. LUNDSTROM, B.S. ..... Chemistry
JAMES DAVID LUTZ, B.S. ..... Public Health
LAY NICHOLS LYNN, B.S. ..... Chemistry
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CLAUDIA C. MORRISON, B.A., M.A. ..... English
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NORMAN MACGREGOR RUGHEIMER, B.S. ..... Physics
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RICHARD LENOIR SANDERS, Undergraduate ..... Physics
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JOAN REBECCA SCOTT, A.B. ..... Radio, TV, Motion Pictures
CURTIS THORNTON SEARS, JR., A.B. ..... Chemistry
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